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     (FILE 'HOME' ENTERED AT 10:36:04 ON 24 AUG 2007)

     FILE 'REGISTRY' ENTERED AT 10:36:18 ON 24 AUG 2007
               E ADENINE HYALURONATE/CN
               E ADENINE HYALURONIC ACID/CN
               E NUCLEOSIDE HYALURONATE/CN
               E GUANINE HYALURONATE/CN
               E PURINE HYALURONATE/CN
               E PYRIMIDINE HYALURONATE/CN
               E ADENOSINE HYALURONATE/CN
               E THYMIDINE HYALURONATE/CN
               E THYMINE HYALURONATE/CN
               E URACIL HYALURONATE/CN
               E URADINE HYALURONATE/CN
               E URIDINE HYALURONIC ACID/CN
               E URIDINE HYALURONANTE/CN
               E NUCLOESIDE HYALURONIC ACID/CN
               E NUCLOESIDE HYALURONATE/CN
               E NUCLEOSIDE HYALURONATE/CN
               E ?OSIDE HYALURONATE/CN
               E ?NINE HYALURONATE/CN

     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:44:04 ON 24 AUG 2007
L1             0 S NUCLEOSIDE HYALURON?
L2            19 S NUCLEO? HYALURON?
L3             0 S L2 AND SALT?
L4             0 S HYALURON? SALT? OF NUCLEOSIDE?
L5             2 S HYALURON? OF NUCLEOSIDE?
L6             0 S HYALURON? OF GUANINE?
L7             0 S HYALURON? SALT (P) GUANINE?
L8            47 S HYALURON? (P) GUANINE?
L9            40 S HYALURON? (P) ADENINE
L10            0 S HYALURONIC ACID? (P) ADENINE (P) COMPLEX?
L11            2 S HYALURONIC ACID? (P) GUANINE (P) COMPLEX?
L12            0 S HYALURONIC ACID? (P) NUCLEOSIDE? (P) COMPLEX?
L13            2 S HYALURONIC ACID? (P) NUCLEOSIDE? (P) SALT?
L14            0 S HYALURONATE? (P) NUCLEOSIDE? (P) SALT?
L15            1 S HYALURONATE? (P) NUCLEOSIDE? (P)COMPLEX?
L16            0 S HYALURONATE? (P) NUCLEOSIDE? (P) CONJUGATE?
L17            1 S HYALURONIC ACID? (P) NUCLEOSIDE? (P) CONJUGATE?
L18            0 S GUANINE HYALURONAT?
L19            0 S ADENINE HYALURONAT?
L20            0 S GUANINE HYALURON?
L21            0 S ADENINE HYALURON?
L22            0 S URIDINE? HYALURON?
L23            0 S URACIL? HYALURON?
L24            1 S THYMINE? HYALURON?
L25            0 S URIDINE? HYALURON?
L26            3 S SALT? OF HYALURONIC ACID? (P) IONIC
L27            0 S SALT? OF HYALURONIC ACID? (P) GUANINE
L28            0 S SALT? OF HYALURONIC ACID? (P) ADENINE
L29            0 S SALT? OF HYALURONIC ACID? (P) URIDINE
L30            0 S SALT? OF HYALURONIC ACID? (P) URACIL
L31            0 S SALT? OF HYALURONIC ACID? (P) ADENOSINE
L32            0 S SALT? OF HYALURONIC ACID? (P) THYMINE
L33            0 S HYALURONIC ACID? SALT? (P) GUANINE
L34            0 S HYALURONIC ACID? SALT? (P) ADENINE
L35            0 S HYALURONIC ACID? SALT? (P) NUCLEOSIDE?
L36            0 S HYALURONIC ACID? COMPLEX? (P) NUCLEOSIDE?
L37            0 S HYALURONIC ACID? COMPLEX? (P) ADENINE?
L38            0 S HYALURONIC ACID? (P) COMPLEX? (P) ADENINE?
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L39             0 S HYALURONIC ACID? (P) COMPLEX? (P) NUCLEOSIDE?
L40             2 S HYALURONIC ACID? (P) COMPLEX? (P) PYRIMIDINE?
L41             2 S HYALURONIC ACID? (P) COMPLEX? (P) PURINE?
L42             2 S HYALURONIC ACID? (P) SALT? (P) PURINE?
L43             8 S HYALURONATE? (P) PURINE?
L44             3 S HYALURONATE? (P) PYRIMIDINE?
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     (FILE 'HOME' ENTERED AT 14:19:59 ON 24 AUG 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 14:20:19 ON 24 AUG 2007
L1           47 S HYALURON? (P) GUANINE?
L2            0 S L1 AND IONIC?
L3            4 S L1 AND SALT?
L4           43 S L1 NOT  L3
L5           10 S L4 AND COMPLEX?
L6           33 S L4 NOT L5
L7            2 S HYALURON? (P) PURINE BASE?
L8           22 S HYALURON? (P) PYRIMIDINE?
L9            4 S HYALURONIC ACID/TI (P) NUCLEOSIDE/TI
L10           0 S HYALURONIC ACID/TI (P) GUANINE/TI
L11           1 S HYALURONIC ACID/TI (P) ADENINE/TI
L12           0 S HYALURONIC ACID/TI (P) THYMINE/TI
L13          10 S HYALURONIC ACID/TI (P) URIDINE/TI
L14           0 S HYALURONATE/TI (P) GUANINE/TI
L15           0 S HYALURONATE/TI (P) ADENINE/TI
L16           0 S HYALURONATE/TI (P) THYMINE/TI
L17           0 S HYALURONATE/TI (P) URIDINE/TI
L18           0 S HYALURONAN/TI (P) GUANINE/TI
L19           0 S HYALURONAN/TI (P) ADENINE/TI
L20           0 S HYALURONAN/TI (P) THYMINE/TI
L21           0 S HYALURONAN/TI (P) URIDINE/TI
L22           1 S HYALURONIC ACID/TI (P) NUCLEIC ACID/TI (P) CONJUGATE?
L23           8 S HYALURONIC ACID (P) NUCLEIC ACID (P) SALT?
L24           7 S HYALURONIC ACID (P) NUCLEIC ACID (P) COMPLEX
L25           0 S HYALURONIC ACID (P) NUCLEIC ACID (P) IONIC BOND?
L26           0 S HYALURONIC ACID (P) NUCLEIC ACID (P) IONIC
L27           5 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) IONIC?
L28           4 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) SALTS
L29           3 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) COMPLEXES
L30           8 S HYALURONIC ACID (P) NUCLEIC ACID (P) INTERACT?
L31           4 S HYALURONIC ACID (P) NUCLEIC ACID BASE?
L32           0 S HYALURONIC ACID (P) PURINE BASE?
L33          19 S HYALURONIC ACID (P) PURINE
L34           6 S HYALURONIC ACID (P) PURINES
L35           0 S HYALURONIC ACID (P) PYRIMIDINE BASE?
L36          17 S HYALURONIC ACID (P) PYRIMIDINE?
L37           0 S HYALURONATE? (P) PURINES
L38           3 S HYALURONATE? (P) PYRIMIDINE?
L39           0 S HYALURONAN? (P) PURINES
L40           2 S HYALURONAN? (P) PYRIMIDINE?
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     (FILE 'HOME' ENTERED AT 15:33:22 ON 24 AUG 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 15:33:52 ON 24 AUG 2007
L1             0 S CYTOSINE? (P) HYALURONIC ACID? (P) IONIC
L2             0 S CYTOSINE? (P) HYALURONIC ACID? (P) SALT?
L3             0 S CYTOSINE? (P) HYALURONATE (P) SALT?
L4             1 S CYTOSINE? (P) HYALURONATE
L5             1 S CYTOSINE? (P) HYALURONAN
L6             0 S CYTOSINE? (P) HYALURONIC ACID? (P) COMPLEX
L7             1 S CYTOSINE? (P) HYALURONIC ACID? (P) COMPLEXES
L8             8 S CYTOSINE? (P) HYALURONIC ACID?
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L3 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:529027 CAPLUS
DOCUMENT NUMBER: 145:110265
TITLE: Manufacture of antitumor composition with bischloroethylamines and guanine analogs
INVENTOR(S): Kong, Qingzhong; Sun, Juan; Zhang, Nan; Chen, Ying; Zhao, Yunfeng
PATENT ASSIGNEE(S): Shandong Lanjin Biotech Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 14 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1679947	A	20051012	CN 2005-10042431	20050203

PRIORITY APPLN. INFO.: CN 2005-10042431 20050203

AB The title antitumor composition comprises bischloroethylamines and guanine analogs as effective components, and auxiliary materials. The guanine analogs can inhibit DNA repair in cells and decrease tumor cell tolerance to bischloroethylamines. The auxiliary materials are biocompatible and biodegradable polymers for topical sustained-release of effective components. The topical release-release of effective components can reduce systemic toxic reaction, selectively increase the drug level at the tumor site, and improve the therapeutic effect of non-operative therapy such as chemotherapy and radiotherapy.

L3 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120889 CAPLUS
DOCUMENT NUMBER: 140:165695
TITLE: Hyaluronic acid derivatives
INVENTOR(S): Manenti, Demetrio; Aita, Gaspare
PATENT ASSIGNEE(S): Jasper Ltd. Liability Co., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013182	A1	20040212	WO 2003-IB2946	20030724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2002MI1666	A1	20040126	IT 2002-MI1666	20020726
AU 2003249491	A1	20040223	AU 2003-249491	20030724
EP 1525224	A1	20050427	EP 2003-766513	20030724
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005239727	A1	20051027	US 2005-522602	20050317

PRIORITY APPLN. INFO.: IT 2002-MI1666 A 20020726
IT 2002-MI166 A 20020726

AB Derivs. between hyaluronic acid and at least one nitrogenated base, in particular at least one heterocyclic compound derived from purine and/or from pyrimidine and cosmetic and/or pharmaceutical compns. based on said derivs. are disclosed.

L3 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:54845 CAPLUS
DOCUMENT NUMBER: 110:54845
TITLE: Association of proteoglycans with other extracellular matrix macromolecules in liver
AUTHOR(S): Unnikrishnan, V. S.; Sudhakaran, P. R.
CORPORATE SOURCE: Dep. Biochem., Univ. Kerala, Trivandrum, 695 581, India
SOURCE: Indian Journal of Experimental Biology (1988), 26(10), 784-9
CODEN: IJEBA6; ISSN: 0019-5189
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To study the association of proteoglycans (PG) with other connective tissue macromols. in liver, tissues from normal and CCl4-induced fibrotic rats were sequentially extracted with collagenase and salts. Phosphate buffered saline solubilized nearly 10-14% of the total glycosaminoglycans (GAG), the major component of which was hyaluronic acid. Collagenase digestion of the residue solubilized nearly 15-20% of the total GAG, the major GAG of which were chondroitin sulfates (CS) and dermatan sulfate (DS). The major GAG in liver, heparan sulfate (HS), was not solubilized by any of these treatments. From the residue after collagenase digestion nearly 35-40% of the total GAG could be solubilized by 2M NaCl containing 0.5% Triton X 100, whereas most of the residual GAG could be solubilized by 4M guanine HCl. More than 80% of GAG solubilized by these procedures was HS. Gel chromatog. of the polysaccharide solubilized by various methods before and after protease digestion over Sephacryl S-300 indicated that these polysaccharides were present in a protein bound form. The solubility pattern indicated a possible interaction between CS/DS-proteoglycan and collagen, whereas HS-PG is likely to be associated with other structural components in an extracellular site and(or) cell surface.

L3 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1955:85021 CAPLUS
DOCUMENT NUMBER: 49:85021
ORIGINAL REFERENCE NO.: 49:16072a-e
TITLE: Effect of some compounds and biological products upon infection by tobacco mosaic virus
AUTHOR(S): Dale, J. L.; Thornberry, H. H.
CORPORATE SOURCE: Univ. of Illinois, Urbana
SOURCE: Trans. Ill. Acad. Sci. (1955), 47, 65-71
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB An infection index consisting of the ratio of the number of local lesions on treated half leaves to the number on control half leaves was established for additives in virus inoculum at varying pH values after abrasion of test plants. Indexes of compds. varied with pH. Indexes greater than 1.5 were observed for acridine red and methyl green, glue, glycine, L-histidine, lysine, DL-methionine, DL-tryptophan, adenosine, adenosinediphosphate, cytidine, cytosine, 2-thiocytosine, protamine nucleinate, D-ribose, uracil, 5-aminouracil, 6-methyluracil, naphthaleneacetic acid, glycylglycine, glycylglycylglycine, glycyl-L-tryptophan, glycerophosphate, Na formate, sorbitol, and catalase; indexes less than 0.5 for acridine yellow, fluorescein, basic fuchsin, iodine green, malachite green, methyl blue, methyl green, orange II, thionine, toluidine blue O, tryptan blue, vita stain, beef blood serum, beef extract, dried blood, casein, edestin, lactalbumin, malt extract, skim milk, thiotone, yeast extract, arginine,

asparagine, D-glutamic acid, L-histidine, lysine, adenosinetriphosphate, adenylic acid, cytidylic acid, DNA, 2,6-diaminopurine sulfate, guanylic acid, Na nucleinate, 2,4-dichloro-6-methylpyrimidine, diazouracil, thiouracil, hypoxanthine, indole-3-acetic acid, glycolic acid, orcinol, soybean trypsin inhibitor, tannic acid, thioglycolate, α-amylase, β-amylase, cozymase, β-glucuronidase, hemicellulase, hyaluronidase, lactase, lysozyme, pectinase, rennin, lipase, crystalline trypsin, powdered trypsin, urease; and indexes between 0.5 and 1.5 (considered to be inactive) for acid fuchsin, orcein, pyronine B, pyronine 2-G, quinoline yellow, Sudan IV, egg albumin, gelatin, gelysate, lactalysate, myosate, phytone, polypeptone, trypticase, L-threonine, DL-alanyl-DL-alanine, adenine, adenosine, isocytosine, guanine, guanosine, 2-amino-4-methyl-pyrimidine, 2,4-dichloropyrimidine, 2,6-dichloropyrimidine, thymine, 5-methylthiouracil, 6-methylthiouracil, uridine, uridylic acid, xanthine, xanthosine, indolebutyric acid, 3-indolepropionic acid, alanylglycylglycine, DL-leucylglycine, DL-leucylglycylglycylglycine, glycyltyrosine, cocoa, glucose-1-phosphate, glucose-6-phosphate, glucosamine-HCl, glutathione, Mn glycerophosphate, hexose diphosphate, inulin, melizitose, phloroglucinol, phytol, resorcinol, salicin, and diastase.

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     (FILE 'HOME' ENTERED AT 14:19:59 ON 24 AUG 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 14:20:19 ON 24 AUG 2007
L1            47 S HYALURON? (P) GUANINE?
L2             0 S L1 AND IONIC?
L3             4 S L1 AND SALT?
L4            43 S L1 NOT  L3
L5            10 S L4 AND COMPLEX?
L6            33 S L4 NOT L5
L7             2 S HYALURON? (P) PURINE BASE?
L8            22 S HYALURON? (P) PYRIMIDINE?
L9             4 S HYALURONIC ACID/TI (P) NUCLEOSIDE/TI
L10            0 S HYALURONIC ACID/TI (P) GUANINE/TI
L11            1 S HYALURONIC ACID/TI (P) ADENINE/TI
L12            0 S HYALURONIC ACID/TI (P) THYMINE/TI
L13           10 S HYALURONIC ACID/TI (P) URIDINE/TI
L14            0 S HYALURONATE/TI (P) GUANINE/TI
L15            0 S HYALURONATE/TI (P) ADENINE/TI
L16            0 S HYALURONATE/TI (P) THYMINE/TI
L17            0 S HYALURONATE/TI (P) URIDINE/TI
L18            0 S HYALURONAN/TI (P) GUANINE/TI
L19            0 S HYALURONAN/TI (P) ADENINE/TI
L20            0 S HYALURONAN/TI (P) THYMINE/TI
L21            0 S HYALURONAN/TI (P) URIDINE/TI
L22            1 S HYALURONIC ACID/TI (P) NUCLEIC ACID/TI (P) CONJUGATE?
L23            8 S HYALURONIC ACID (P) NUCLEIC ACID (P) SALT?
L24            7 S HYALURONIC ACID (P) NUCLEIC ACID (P) COMPLEX
L25            0 S HYALURONIC ACID (P) NUCLEIC ACID (P) IONIC BOND?
L26            0 S HYALURONIC ACID (P) NUCLEIC ACID (P) IONIC
L27            5 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) IONIC?
L28            4 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) SALTS
L29            3 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) COMPLEXES
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     (FILE 'HOME' ENTERED AT 14:19:59 ON 24 AUG 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 14:20:19 ON 24 AUG 2007
L1            47 S HYALURON? (P) GUANINE?
L2             0 S L1 AND IONIC?
L3             4 S L1 AND SALT?
L4            43 S L1 NOT  L3
L5            10 S L4 AND COMPLEX?
L6            33 S L4 NOT L5
L7             2 S HYALURON? (P) PURINE BASE?
L8            22 S HYALURON? (P) PYRIMIDINE?
L9             4 S HYALURONIC ACID/TI (P) NUCLEOSIDE/TI
L10            0 S HYALURONIC ACID/TI (P) GUANINE/TI
L11            1 S HYALURONIC ACID/TI (P) ADENINE/TI
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L14            0 S HYALURONATE/TI (P) GUANINE/TI
L15            0 S HYALURONATE/TI (P) ADENINE/TI
L16            0 S HYALURONATE/TI (P) THYMINE/TI
L17            0 S HYALURONATE/TI (P) URIDINE/TI
L18            0 S HYALURONAN/TI (P) GUANINE/TI
L19            0 S HYALURONAN/TI (P) ADENINE/TI
L20            0 S HYALURONAN/TI (P) THYMINE/TI
L21            0 S HYALURONAN/TI (P) URIDINE/TI
L22            1 S HYALURONIC ACID/TI (P) NUCLEIC ACID/TI (P) CONJUGATE?
L23            8 S HYALURONIC ACID (P) NUCLEIC ACID (P) SALT?
L24            7 S HYALURONIC ACID (P) NUCLEIC ACID (P) COMPLEX
L25            0 S HYALURONIC ACID (P) NUCLEIC ACID (P) IONIC BOND?
L26            0 S HYALURONIC ACID (P) NUCLEIC ACID (P) IONIC
L27            5 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) IONIC?
L28            4 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) SALTS
L29            3 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) COMPLEXES
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L30 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:708939 CAPLUS
TITLE: Interaction of nucleic acids and glycans
AUTHOR(S): Zimnitsky, A. N.; Bashkatov, S. A.; Urazbayev, V. N.
CORPORATE SOURCE: "Plazan" NPO, Moscow, 125040, Russia
SOURCE: Biofizika (2007), 52(3), 443-451
CODEN: BIOFAI; ISSN: 0006-3029
PUBLISHER: Izdatel'stvo Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Spectrophotometric anal. and dot-hybridization have shown that amylose forms complexes with polypyrimidines (poly dC), while polyuronides form complexes with polypurines (poly dA). In addition, the formation of complexes genomic thymus DNA-hyaluronic acid has been observed. A certain role in the mechanism of NA-polysaccharide interactions can be played by the links between purines and the carboxylic group of hexuronic acid residue, as well as between pyrimidines and the hydroxymethyl group of hexose residue. The quantum-chemical calcns. showed that, between nitric bases of DNA and the carboxyl groups of hexuronic acids or the hydroxymethyl group of hexose, hydrogen bonds can be formed the energy of which is comparable with that in the complementary AT and CG pairs. The strength of these bonds is unequal: carboxyl groups form stronger hydrogen bonds with purines and weaker bonds with pyrimidines. The hydroxymethyl group, on the contrary, forms stronger hydrogen bonds with pyrimidines and weaker bonds with purines. The quantum-chemical modeling shows that, in the complementary pairs purin-uronic acid and pyrimidine-hexose, hydrogen bonds are produced that form a binary chain nucleic acid-polysaccharide. The data obtained suggest the existence of template synthesis of GAG polysaccharide fragments with the participation of NA.

L30 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:470813 CAPLUS
DOCUMENT NUMBER: 125:150838
TITLE: Water-soluble nucleic acid analogs - preparation and properties
AUTHOR(S): Takemoto, Kiichi
CORPORATE SOURCE: Faculty Science and Technology, Ryukoku University, Shiga, Japan
SOURCE: Advanced Biomaterials in Biomedical Engineering and Drug Delivery Systems, [Iketani Conference on Biomedical Polymers], 5th, Kagoshima, Japan, Apr. 18-22, 1995 (1996), Meeting Date 1995, 18-22. Editor(s): Ogata, Naoya. Springer: Tokyo, Japan.
CODEN: 63CXA6
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review, with 9 refs. For the purpose of preparing water-soluble natural and synthetic polymers, which contain nucleic acid base units as the functional side groups, a different sorts of polymers, such as polyethyleneimine, polyamino acids, etc., were used as the base materials. The properties of the polymers derived, as well as the specific interaction between nucleic base containing complementary polymers were studied in detail. Introduction of such nucleic acid base units onto hyaluronic acid was also carried out. Applicabilities of these polymers obtained, for example those as the controlled release system by using reversible photodimerization reaction of thymine bases were also shown.

L30 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:113960 CAPLUS
DOCUMENT NUMBER: 124:168387
TITLE: Water soluble nucleic acid analogs: preparation and

properties
AUTHOR(S): Takemoto, Kiichi
CORPORATE SOURCE: Faculty Science Technology, Ryukoku University, Otsu, 520-21, Japan
SOURCE: Macromolecular Symposia (1996), 103(Polymers and Medicine), 119-25
CODEN: MSYMEC; ISSN: 1022-1360
PUBLISHER: Huethig & Wepf
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review and discussion, with 9 refs. To prepare water soluble natural and synthetic polymers, which contain nucleic acid base units as the functional side groups, a different sort of polymers, such as poly(ethyleneimine), poly(amino acids) and so on were used as the base materials. The properties of the polymers derived, in particular the specific interaction between nucleic acid base containing complementary polymers was studied in detail. Introduction of the base units onto hyaluronic acid was also carried out. Applicabilities of these polymers obtained, for example as the controlled release system by using reversible photodimerization reaction of thymine bases were also shown.

L30 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:361017 CAPLUS
DOCUMENT NUMBER: 122:142456
TITLE: Transport performance of nucleosides through nucleic acid bases-conjugated hyaluronan
AUTHOR(S): Chirachanchai, Suwabun; Wada, Takehiko; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Chemistry Letters (1995), (2), 121-2
CODEN: CMLTAG; ISSN: 0366-7022
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The transport performance of nucleosides through the membranes of hyaluronic acid and deacetylated hyaluronan conjugated with nucleic acid base derivs. has been studied under varied temperature Partition coefficient values of the permeants and permeabilities of the membranes showed the selectivity of nucleosides due to the effect of specific interaction between the permeants and nucleic acid base moiety in the membrane.

L30 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:341470 CAPLUS
DOCUMENT NUMBER: 123:9822
TITLE: Synthesis and properties of hyaluronic acid conjugated nucleic acid analogs-1: synthesis of deacetylhyaluronan and introduction of nucleic acid bases
AUTHOR(S): Wada, Takehiko; Chirachanchai, Suwabun; Izawa, Naoto; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Faculty of Engineering, Osaka University, Suita, 565, Japan
SOURCE: Journal of Bioactive and Compatible Polymers (1994), 9(4), 429-47
CODEN: JBCPEV; ISSN: 0883-9115
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The conjugation of nucleic acid base with hyaluronan was achieved by using the activated ester of pentachlorophenyl trichloroacetate. The conditions of de-N-acetylation of sodium hyaluronic acid were studied. In low concns. of NaOH,

the degree of deacetylation was 26%, while in 7.4N NaOH, the degree of deacetylation was 76% and the viscosity was 1.12 dL/g. Thymine and 5-fluorouracil bases were quant. conjugated to deacetylhyaluronan in 65% and 51%, resp. The interaction of thymine hyaluronan conjugate with the complementary base of polyadenylate showed a small hypochromicity.

L30 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1963:450000 CAPLUS
DOCUMENT NUMBER: 59:50000
ORIGINAL REFERENCE NO.: 59:9096b-c
TITLE: Effect of polyanions on the multiplication of two variants of polio virus
AUTHOR(S): Agol, V. I.; Chumakova, M. Ya.
CORPORATE SOURCE: Acad. Med. Sci. U.S.S.R., Moscow
SOURCE: Acta Virol. (Prague) (1963), 7, 97-106
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Agar contains a soluble sulfated polysaccharide (I) which inhibits the multiplication of the d- variant of polio virus, under an agar overlay with a relatively low bicarbonate concentration I, at the concns. tested, does not affect the multiplication of the d+ variant of polio virus either at high or low concns. of NaHCO3 in the overlay solution The agar can be freed of a substantial part of I by a simple extraction treatment; when using such extracted agar, the d marker cannot be demonstrated. Other polyanions (heparin, hyaluronic acid, and polyvinyl sulfate) exert an effect similar to that of I. The polyanions apparently act at one of the early stages of the interaction of virus with the cell, although the possibility of inhibition of later stages of virus multiplication cannot be excluded. Inhibition by polyanions may occur at the stage of protein stripping of the virus, i.e., when nucleic acid becomes free from the protein coat. This stripping is probably performed by a cellular enzymic system, possibly inhibited by polyanions.

L30 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1951:41694 CAPLUS
DOCUMENT NUMBER: 45:41694
ORIGINAL REFERENCE NO.: 45:7167h-i,7168a-c
TITLE: Biochemical factors which determine the mechanical properties of intracellular and tissue structures
AUTHOR(S): Vorob'ev, V. I.; Shapot, V. S.
SOURCE: Doklady Akademii Nauk SSSR (1951), 77, 309-12
CODEN: DANKAS; ISSN: 0002-3264
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The mech. properties of fibers of desoxyribonucleic acid, thymonucleohistone, "synthetic" nucleoproteins (from desoxyribonucleic acid and histone or depolymerase of nucleic acid), and high-mol.-weight hyaluronic acid were determined The results are given graphically. Threads of desoxyribonucleic acid precipitated by ejection from a syringe into a precipitating bath are largely oriented along the axis of the fiber. When the polymeric acid is repptd. several times with EtOH it acquires unexpected solubility in EtOH, but if an aqueous solution of such an acid is rapidly ejected from a capillary into 85% EtOH the products form insol. threads. Free desoxyribonucleic acid shows a characteristic increase of deformation (stretch) with time under load (up to 1000% in 60-90 sec.), all nucleoproteins did not show this phenomenon. Nucleohistone filaments show tensile strength of 8 kg./sq. cm., while the free desoxyribonucleic acid gives but 3 kg./sq. cm. Apparently in the former substances the threads of the latter are bound together by their side chains and resist laminar flow of deformation by tension. The

nucleoprotein and the synthetic nucleohistone are elastic threads while desoxyribonucleic acid threads are inelastic, again explained by side-chain interaction. Threads of hyaluronic acid formed by ejection of its biol. extract into aqueous EtOH are definitely elastic indicating that hyaluronic acid is bound with the protein matter, since the free acid is inelastic. However, the deformation with time is rather high (up to 800%) indicating that the biol. extract contains the free acid along with its protein complex. The elasticity of natural structures is thus explainable on the basis of existence of desoxyribonucleoproteins and protein complexes of hyaluronic acid.

L30 ANSWER 8 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2007414977 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17633532
TITLE: Interaction of nucleic acids and glycans.
AUTHOR: Zimnitskii A N; Bashkatov S A; Urazbaev V N
SOURCE: Biofizika, (2007 May-Jun) Vol. 52, No. 3, pp. 443-51. Journal code: 0372666. ISSN: 0006-3029.
PUB. COUNTRY: Russia (Federation)
DOCUMENT TYPE: (ENGLISH ABSTRACT) Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 19 Jul 2007 Last Updated on STN: 18 Aug 2007 Entered Medline: 17 Aug 2007

AB Spectrophotometric analysis and dot-hybridization have shown that amylose forms complexes with polypyrimidines (poly dC), while polyuronides form complexes with polypurines (poly dA). In addition, the formation of complexes genomic thymus DNA-hyaluronic acid has been observed. A certain role in the mechanism of NA-polysaccharide interactions can be played by the links between purines and the carboxylic group of hexuronic acid residue, as well as between pyrimidines and the hydroxymethyl group of hexose residue. The quantum-chemical calculations showed that, between nitric bases of DNA and the carboxyl groups of hexuronic acids or the hydroxymethyl group of hexose, hydrogen bonds can be formed the energy of which is comparable with that in the complementary AT and CG pairs. The strength of these bonds is unequal: carboxyl groups form stronger hydrogen bonds with purines and weaker bonds with pyrimidines. The hydroxymethyl group, on the contrary, forms stronger hydrogen bonds with pyrimidines and weaker bonds with purines. The quantum-chemical modeling shows that, in the complementary pairs purin-uronic acid and pyrimidine-hexose, hydrogen bonds are produced that form a binary chain nucleic acid-polysaccharide. The data obtained suggest the existence of template synthesis of GAG polysaccharide fragments with the participation of NA.

L31 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:470813 CAPLUS
DOCUMENT NUMBER: 125:150838
TITLE: Water-soluble nucleic acid analogs - preparation and properties
AUTHOR(S): Takemoto, Kiichi
CORPORATE SOURCE: Faculty Science and Technology, Ryukoku University, Shiga, Japan
SOURCE: Advanced Biomaterials in Biomedical Engineering and Drug Delivery Systems, [Iketani Conference on Biomedical Polymers], 5th, Kagoshima, Japan, Apr. 18-22, 1995 (1996), Meeting Date 1995, 18-22. Editor(s): Ogata, Naoya. Springer: Tokyo, Japan. CODEN: 63CXA6
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review, with 9 refs. For the purpose of preparing water-soluble natural and synthetic polymers, which contain nucleic acid base units as the functional side groups, a different sorts of polymers, such as polyethyleneimine, polyamino acids, etc., were used as the base materials. The properties of the polymers derived, as well as the specific interaction between nucleic base containing complementary polymers were studied in detail. Introduction of such nucleic acid base units onto hyaluronic acid was also carried out. Applicabilities of these polymers obtained, for example those as the controlled release system by using reversible photodimerization reaction of thymine bases were also shown.

L31 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:113960 CAPLUS
DOCUMENT NUMBER: 124:168387
TITLE: Water soluble nucleic acid analogs: preparation and properties
AUTHOR(S): Takemoto, Kiichi
CORPORATE SOURCE: Faculty Science Technology, Ryukoku University, Otsu, 520-21, Japan
SOURCE: Macromolecular Symposia (1996), 103(Polymers and Medicine), 119-25 CODEN: MSYMEC; ISSN: 1022-1360
PUBLISHER: Huethig & Wepf
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review and discussion, with 9 refs. To prepare water soluble natural and synthetic polymers, which contain nucleic acid base units as the functional side groups, a different sort of polymers, such as poly(ethyleneimine), poly(amino acids) and so on were used as the base materials. The properties of the polymers derived, in particular the specific interaction between nucleic acid base containing complementary polymers was studied in detail. Introduction of the base units onto hyaluronic acid was also carried out. Applicabilities of these polymers obtained, for example as the controlled release system by using reversible photodimerization reaction of thymine bases were also shown.

L31 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:361017 CAPLUS
DOCUMENT NUMBER: 122:142456
TITLE: Transport performance of nucleosides through nucleic acid bases-conjugated hyaluronan
AUTHOR(S): Chirachanchai, Suwabun; Wada, Takehiko; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Chemistry Letters (1995), (2), 121-2

CODEN: CMLTAG; ISSN: 0366-7022
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The transport performance of nucleosides through the membranes of hyaluronic acid and deacetylated hyaluronan conjugated with nucleic acid base derivs. has been studied under varied temperature Partition coefficient values of the permeants and permeabilities of the membranes showed the selectivity of nucleosides due to the effect of specific interaction between the permeants and nucleic acid base moiety in the membrane.

L31 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:341470 CAPLUS
DOCUMENT NUMBER: 123:9822
TITLE: Synthesis and properties of hyaluronic acid conjugated nucleic acid analogs-1: synthesis of deacetylhyaluronan and introduction of nucleic acid bases
AUTHOR(S): Wada, Takehiko; Chirachanchai, Suwabun; Izawa, Naoto; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Faculty of Engineering, Osaka University, Suita, 565, Japan
SOURCE: Journal of Bioactive and Compatible Polymers (1994), 9(4), 429-47
CODEN: JBCPEV; ISSN: 0883-9115
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The conjugation of nucleic acid base with hyaluronan was achieved by using the activated ester of pentachlorophenyl trichloroacetate. The conditions of de-N-acetylation of sodium hyaluronic acid were studied. In low concns. of NaOH, the degree of deacetylation was 26%, while in 7.4N NaOH, the degree of deacetylation was 76% and the viscosity was 1.12 dL/g. Thymine and 5-fluorouracil bases were quant. conjugated to deacetylhyaluronan in 65% and 51%, resp. The interaction of thymine hyaluronan conjugate with the complementary base of polyadenylate showed a small hypochromicity.

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:149601 CAPLUS
DOCUMENT NUMBER: 76:149601
TITLE: Connective tissue activation. III. Observations on the mechanism of action of connective tissue activating peptide
AUTHOR(S): Castor, C. William; Dorstewitz, Emily L.; Ritchie, James C.; Smith, Susan F.
CORPORATE SOURCE: Med. Sch., Univ. Michigan, Ann Arbor, MI, USA
SOURCE: Journal of Laboratory and Clinical Medicine (1972), 79(2), 285-301
CODEN: JLCMAK; ISSN: 0022-2143
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A polypeptide extractable from human cells induced metabolic hyperactivity in cultured human synovial cells resembling that seen in chronic rheumatoid synovitis. Increased metabolic activity included overproduction of hyaluronic acid [9004-61-9], and lactic acid [50-21-5] and increased glucose [50-99-7] consumption. Inhibition of DNA synthesis with cytosine arabinoside [147-94-4] did not block the activation process. Inhibition of transcription with actinomycin D [50-76-0], chromomycin A3 [7059-24-7], mithramycin [18378-89-7], acridine orange [10127-02-3], and α-amanitin [23109-05-9] effectively blocked the synovial response to activator peptide. Inhibitors of protein synthesis, including puromycin [53-79-2], cycloheximide [66-81-9], and acetoxycycloheximide [3326-96-3], also blocked the activation process when added to cultures simultaneously with the activator peptide. Oxygen-deprived cultures failed to develop a maximum response to the activator peptide, and both 2,4-dinitrophenol [51-28-5] and Na fluoride [7681-49-4] opposed the activation process. The effects of the activator polypeptide on hyaluronic acid synthesis were separable from those involving glucose consumption and glycolysis. Activated synovial cell cultures produced increased amts. of hyaluronic acid with decreased intrinsic viscosity. Inhibition of protein synthesis in activated cultures did not block formation of macromol. hyaluronate, and in fact led to the formation of hyaluronic acid with markedly increased intrinsic viscosity.

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:115737 CAPLUS
DOCUMENT NUMBER: 146:198727
TITLE: Therapeutic protocols using hyaluronan
INVENTOR(S): Brown, Tracey Jean
PATENT ASSIGNEE(S): Meditech Research Limited, Australia
SOURCE: PCT Int. Appl., 117pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007012133	A1	20070201	WO 2006-AU1059	20060727

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-703148P P 20050727

AB The present invention is predicated in part on the determination that hyaluronic acid, also referred to herein as hyaluronan or HA, or its chemical modified derivs., modulates the levels or activities of enzymes which generate either toxic metabolites of therapeutic agents or their prodrug forms or which generate more efficacious forms of the therapeutic agents. In addition, the proteins responsible for the resorption, transport and excretion of these drugs or their metabolites may be modulated by hyaluronan. It is proposed, therefore, to coadminister simultaneously or sequentially in either order hyaluronan and a therapeutic agent. The present invention demonstrates surprisingly that including particularly lower mol. weight hyaluronan as a component of a formulation being used for the treatment of a disease results in a reduction of the toxicity level in the gastrointestinal tract while altering the pharmacodynamics of the drug wherein the end result is a reduction in toxic drugs or their metabolites within the circulation.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:414416 CAPLUS
DOCUMENT NUMBER: 117:14416
TITLE: Manufacture of pharmaceutical-hyaluronic acid complexes
INVENTOR(S): Akima, Kazuo; Iwata, Yuhei; Matsuo, Kayoko; Watari, Nobutoshi
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9206714	A1	19920430	WO 1991-JP1431	19911018
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2070672	A1	19920419	CA 1991-2070672	19911018
CA 2070672	C	20021008		
AU 9187140	A	19920520	AU 1991-87140	19911018
AU 652784	B2	19940908		
EP 506976	A1	19921007	EP 1991-917837	19911018
EP 506976	B1	19970409		
R: DE, FR, GB, IT, NL				
US 5733891	A	19980331	US 1995-380324	19950130

PRIORITY APPLN. INFO.:

JP 1990-280628	A	19901018
JP 1991-159611	A	19910603
WO 1991-JP1431	A	19911018
US 1992-861852	B1	19920618

AB Pharmaceuticals are bound to carboxyl groups of glucuronic acid residues of hyaluronic acid via amido linkage. The pharmaceuticals may be neoplasm inhibitors. Thus, Na hyaluronate in pyridine was converted to N-hydroxysuccinimidated hyaluronic acid which was then treated with mitomycin C to give a mitomycin C-hyaluronic acid complex. The complex has less side effects than mitomycin C itself, and is delivered to the target more efficiently.

L8 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:414416 CAPLUS
DOCUMENT NUMBER: 117:14416
TITLE: Manufacture of pharmaceutical-hyaluronic acid complexes
INVENTOR(S): Akima, Kazuo; Iwata, Yuhei; Matsuo, Kayoko; Watari, Nobutoshi
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9206714	A1	19920430	WO 1991-JP1431	19911018
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2070672	A1	19920419	CA 1991-2070672	19911018
CA 2070672	C	20021008		
AU 9187140	A	19920520	AU 1991-87140	19911018
AU 652784	B2	19940908		
EP 506976	A1	19921007	EP 1991-917837	19911018
EP 506976	B1	19970409		
R: DE, FR, GB, IT, NL				
US 5733891	A	19980331	US 1995-380324	19950130

PRIORITY APPLN. INFO.:

JP 1990-280628	A	19901018
JP 1991-159611	A	19910603
WO 1991-JP1431	A	19911018
US 1992-861852	B1	19920618

AB Pharmaceuticals are bound to carboxyl groups of glucuronic acid residues of hyaluronic acid via amido linkage. The pharmaceuticals may be neoplasm inhibitors. Thus, Na hyaluronate in pyridine was converted to N-hydroxysuccinimidated hyaluronic acid which was then treated with mitomycin C to give a mitomycin C-hyaluronic acid complex. The complex has less side effects than mitomycin C itself, and is delivered to the target more efficiently.

L8 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:456315 CAPLUS
DOCUMENT NUMBER: 113:56315
TITLE: Stimulation by concanavalin A of cartilage-matrix proteoglycan synthesis in chondrocyte cultures
AUTHOR(S): Yan, Weiqun; Nakashima, Kazuhisa; Iwamoto, Masahiro; Kato, Yukio
CORPORATE SOURCE: Fac. Dent., Osaka Univ., Suita, 565, Japan
SOURCE: Journal of Biological Chemistry (1990), 265(17), 10125-31
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effect of con A on proteoglycan synthesis by rabbit costal and articular chondrocytes was examined Chondrocytes were seeded at low d. and grown to confluency in medium supplemented with 10% fetal bovine serum, and then the serum concentration was reduced to 0.3%. At the low serum concentration, chondrocytes adopted a fibroblastic morphol. Addition of con A to the culture medium induced a morphol. alteration of the fibroblastic cells to spherical chondrocytes and increased by 3-4-fold incorporation of [35S]sulfate and [35H]glucosamine into large chondroitin sulfate proteoglycan that was characteristically found in cartilage. The

stimulation of incorporation of labeled precursors reflected real increases in proteoglycan synthesis, as chemical analyses showed a 4-fold increase in the accumulation of macromols. containing hexuronic acid in con A-maintained cultures. Furthermore, the effect of con A on [35S]sulfate incorporation into proteoglycans was greater than that of various growth factors or hormones. However, con A had smaller effects on [35S]sulfate incorporation into small proteoglycans and [3H]glucosamine incorporation into hyaluronic acid and chondroitinase AC-resistant gycosaminoglycans. Since other lectins tested, such as wheat germ agglutinin, lentil lectin, and phytohemagglutinin, had little effect on [35S]sulfate incorporation into proteoglycans, the con A action on chondrocytes seems specific. Although con A decreased [3H]thymidine incorporation in chondrocytes, the stimulation of proteoglycan synthesis could be observed in chondrocytes exposed to the inhibitor of DNA synthesis, cytosine arabinoside. Thus, con A is a potent modulator of proteoglycan synthesis by chondrocytes.

L8 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:487078 CAPLUS
DOCUMENT NUMBER: 101:87078
TITLE: Pectinolytic enzymes of oral spirochetes from humans
AUTHOR(S): Weber, Frederick H.; Canale-Parola, E.
CORPORATE SOURCE: Dep. Microbiol., Univ. Massachusetts, Amherst, MA, 01003, USA
SOURCE: Applied and Environmental Microbiology (1984), 48(1), 61-7
CODEN: AEMIDF; ISSN: 0099-2240
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Five strains of obligately anaerobic, pectin-fermenting spirochetes were isolated from the subgingival plaque of humans. The strains produced 2 extracellular enzymic activities that functioned in pectin degradation One of these enzymic activities was pectin methylesterase (EC 3.1.1.11), and the other was pectate lyase (EC 4.2.2.2) of the endo type. The cumulative action of these 2 enzymic activities brought about depolymn. of pectin in spirochete cultures. Pectin- or polygalacturonate-degrading hydrolases were not detected. A cell-associated lyase activity that catalyzed polygalacturonate breakdown was present in one of the spirochete strains. In addition to pectin, the isolates utilized polygalacturonic, glucuronic, or galacturonic acid as fermentable substrate but did not utilize neutral sugars, amino acids, or other substrates tested. Although the oral spirochetes did not ferment hyaluronic acid, 1 of the strains grew in coculture with a hyaluronidase-producing Peptostreptococcus strain in a medium containing hyaluronic acid as fermentable substrate. Two of the isolates were identified as Treponema pectinovorum strains on the basis of their substrate utilization pattern, end products of fermentation, other phenotypic characteristics, and the guanine-plus-cytosine content of their DNA. Even though the pectinolytic isolates were specialized with respect to the fermentable substrates they utilized, they appeared to complete successfully with other microorganisms in their habitat.

L8 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1972:149601 CAPLUS
DOCUMENT NUMBER: 76:149601
TITLE: Connective tissue activation. III. Observations on the mechanism of action of connective tissue activating peptide
AUTHOR(S): Castor, C. William; Dorstewitz, Emily L.; Ritchie, James C.; Smith, Susan F.
CORPORATE SOURCE: Med. Sch., Univ. Michigan, Ann Arbor, MI, USA
SOURCE: Journal of Laboratory and Clinical Medicine (1972), 79(2), 285-301
CODEN: JLCMAK; ISSN: 0022-2143

DOCUMENT TYPE: Journal
LANGUAGE: English
AB A polypeptide extractable from human cells induced metabolic hyperactivity in cultured human synovial cells resembling that seen in chronic rheumatoid synovitis. Increased metabolic activity included overproduction of hyaluronic acid [9004-61-9], and lactic acid [50-21-5] and increased glucose [50-99-7] consumption. Inhibition of DNA synthesis with cytosine arabinoside [147-94-4] did not block the activation process. Inhibition of transcription with actinomycin D [50-76-0], chromomycin A3 [7059-24-7], mithramycin [18378-89-7], acridine orange [10127-02-3], and α-amanitin [23109-05-9] effectively blocked the synovial response to activator peptide. Inhibitors of protein synthesis, including puromycin [53-79-2], cycloheximide [66-81-9], and acetoxycycloheximide [3326-96-3], also blocked the activation process when added to cultures simultaneously with the activator peptide. Oxygen-deprived cultures failed to develop a maximum response to the activator peptide, and both 2,4-dinitrophenol [51-28-5] and Na fluoride [7681-49-4] opposed the activation process. The effects of the activator polypeptide on hyaluronic acid synthesis were separable from those involving glucose consumption and glycolysis. Activated synovial cell cultures produced increased amts. of hyaluronic acid with decreased intrinsic viscosity. Inhibition of protein synthesis in activated cultures did not block formation of macromol. hyaluronate, and in fact led to the formation of hyaluronic acid with markedly increased intrinsic viscosity.

L8 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1961:33404 CAPLUS
DOCUMENT NUMBER: 55:33404
ORIGINAL REFERENCE NO.: 55:6574f-h
TITLE: Enzymic sulfation of chondroitin B
AUTHOR(S): Davidson, Eugene A.; Riley, Joseph G.
CORPORATE SOURCE: Duke Univ., Durham, NC
SOURCE: Journal of Biological Chemistry (1960), 235, 3367-9
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 49, 3286h. A sulfotransferase was partially purified from exts. of rabbit skin; it shows acceptor specificity for chondroitin B as compared with chondroitin A, chondroitin sulfate A, B, or C, hyaluronic acid, and keratosulfate. Exts. of rabbit skin contain sulfate-activating enzymes and do not cause appreciable breakdown of 3'-phosphoadenosine-5'-phosphosulfate. Sulfation of chondroitin B by this system is stimulated more than 3-fold by uridine triphosphate, but not by the triphosphates of guanosine, cytosine, or adenosine.

L8 ANSWER 6 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2006056562 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16440800
TITLE: Prognostic value of serum markers for liver fibrosis in transient abnormal myelopoiesis (TAM).
AUTHOR: Kuroiwa Yuki; Suzuki Nobuhiro; Yamamoto Masaki; Hatakeyama Naoki; Hori Tsukasa; Mizue Nobuo
CORPORATE SOURCE: Department of Pediatrics, Sapporo Medical University School of Medicine.
SOURCE: [Rinsho ketsueki] The Japanese journal of clinical hematology, (2005 Nov) Vol. 46, No. 11, pp. 1179-86.
Journal code: 2984782R. ISSN: 0485-1439.
PUB. COUNTRY: Japan
DOCUMENT TYPE: (CASE REPORTS)
(ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200603
ENTRY DATE: Entered STN: 31 Jan 2006
Last Updated on STN: 15 Mar 2006
Entered Medline: 14 Mar 2006

AB Transient abnormal myelopoiesis (TAM) is usually a self-limiting myeloproliferative disorder observed in approximately 10% of newborn infants with Down syndrome. However, progressive liver fibrosis may occur in patients with TAM and is often lethal. We investigated the utility of the serum levels of hyaluronic acid (HA) and N-terminal peptide of III procollagen (P-III-P) as markers of liver fibrosis and indication for chemotherapy. We reviewed 4 cases of TAM retrospectively. HA levels were more than one hundred times as high as the upper limit of the normal range in 2 patients, one of whom died from gastrointestinal bleeding. His HA and P-III-P had increased up to 18,800 U/ml and 26.2 ng/ml, respectively, just before he died. Another patient's serum HA and P-III-P increased to 6,100 U/ml and 12.8 ng/ml, respectively, however his liver fibrosis resolved with low-dose cytosine arabinoside treatment after exchange transfusion during his clinical course. We suggest that serum HA is useful as a marker of liver fibrosis and a prognostic indicator for chemotherapy in patients with TAM. Early treatment including both exchange transfusion and chemotherapy should be considered for patients presenting with extremely high or an elevating tendency of their HA serum levels.

L8 ANSWER 7 OF 8 MEDLINE on STN
ACCESSION NUMBER: 90277625 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2351653
TITLE: Stimulation by concanavalin A of cartilage-matrix proteoglycan synthesis in chondrocyte cultures.
AUTHOR: Yan W Q; Nakashima K; Iwamoto M; Kato Y
CORPORATE SOURCE: Department of Biochemistry, Faculty of Dentistry, Osaka University, Japan.
SOURCE: The Journal of biological chemistry, (1990 Jun 15) Vol. 265, No. 17, pp. 10125-31.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199007
ENTRY DATE: Entered STN: 24 Aug 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 16 Jul 1990

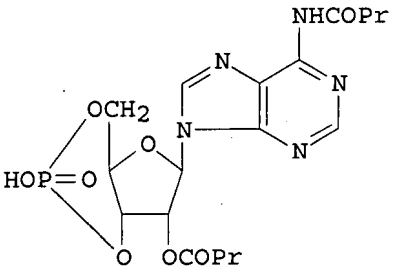
AB The effect of concanavalin A on proteoglycan synthesis by rabbit costal and articular chondrocytes was examined. Chondrocytes were seeded at low density and grown to confluency in medium supplemented with 10% fetal bovine serum, and then the serum concentration was reduced to 0.3%. At the low serum concentration, chondrocytes adopted a fibroblastic morphology. Addition of concanavalin A to the culture medium induced a morphologic alteration of the fibroblastic cells to spherical chondrocytes and increased by 3- to 4-fold incorporation of [35S]sulfate and [3H]glucosamine into large chondroitin sulfate proteoglycan that was characteristically found in cartilage. The stimulation of incorporation of labeled precursors reflected real increases in proteoglycan synthesis, as chemical analyses showed a 4-fold increase in the accumulation of macromolecules containing hexuronic acid in concanavalin A-maintained cultures. Furthermore, the effect of concanavalin A on [35S]sulfate incorporation into proteoglycans was greater than that of various growth factors or hormones. However, concanavalin A had smaller effects on [35S]sulfate incorporation into small proteoglycans and [3H]glucosamine incorporation into hyaluronic acid and chondroitinase AC-resistant glycosaminoglycans. Since other lectins tested, such as wheat germ agglutinin, lentil lectin, and phytohemagglutinin, had little

effect on [35S]sulfate incorporation into proteoglycans, the concanavalin A action on chondrocytes seems specific. Although concanavalin A decreased [3H]thymidine incorporation in chondrocytes, the stimulation of proteoglycan synthesis could be observed in chondrocytes exposed to the inhibitor of DNA synthesis, cytosine arabinoside. These results indicate that concanavalin A is a potent modulator of proteoglycan synthesis by chondrocytes.

L8 ANSWER 8 OF 8 MEDLINE on STN
ACCESSION NUMBER: 84305888 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6383218
TITLE: Pectinolytic enzymes of oral spirochetes from humans.
AUTHOR: Weber F H; Canale-Parola E
CONTRACT NUMBER: AI-17737 (NIAID)
SOURCE: Applied and environmental microbiology, (1984 Jul) Vol. 48, No. 1, pp. 61-7.
Journal code: 7605801. ISSN: 0099-2240.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198410
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 10 Oct 1984

AB Five strains of obligately anaerobic, pectin-fermenting spirochetes were isolated from the subgingival plaque of humans. The strains produced two extracellular enzymatic activities that functioned in pectin degradation. One of these enzymatic activities was pectin methylesterase (EC 3.1.1.11), and the other was pectate lyase (EC 4.2.2.2) of the endo type. The data indicate that the cumulative action of these two enzymatic activities brought about depolymerization of pectin in spirochete cultures. Pectin- or polygalacturonate-degrading hydrolases were not detected. A cell-associated lyase activity that catalyzed polygalacturonate breakdown was present in one of the spirochete strains. In addition to pectin, the isolates utilized polygalacturonic, glucuronic, or galacturonic acid as fermentable substrate but did not neutral sugars, amino acids, or other substrates tested. Although the oral spirochetes did not ferment hyaluronic acid, one of the strains grew in coculture with a hyaluronidase-producing Peptostreptococcus strain in a medium containing hyaluronic acid as fermentable substrate. Two of the isolates were identified as Treponema pectinovorum strains on the basis of their substrate utilization pattern, end products of fermentation, other phenotypic characteristics, and the guanine-plus-cytosine content of their DNA. Even though the pectinolytic isolates were specialized with respect to the fermentable substrates they utilized, they appeared to compete successfully with other microorganisms in their habitat.

L2 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:485019 CAPLUS
DOCUMENT NUMBER: 89:85019
TITLE: The effect of cyclic nucleotides on the incorporation of 3H-glucosamine into hyaluronate in bone organ culture
AUTHOR(S): Severson, A. R.
CORPORATE SOURCE: Dep. Biomed. Anat., Univ. Minnesota Sch. Med., Duluth, MN, USA
SOURCE: Hormone and Metabolic Research (1978), 10(3), 256-60
CODEN: HMMRA2; ISSN: 0018-5043
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Addition of dibutyryl cyclic AMP (I) [362-74-3] or parathyroid hormone [9002-64-6] to mouse bone organ cultures markedly increased the incorporation of glucosamine-3H into nondialyzable macromols. Other cyclic nucleotides or their dibutyryl derivs. did not stimulate glucosamine incorporation. DEAE-cellulose chromatog. of the papain-digested calvaria and culture medium resolved the labeled material into four peaks. A four-fold increase in radioactivity was observed in peak III. Previous studies of peak III have identified the labeled material as hyaluronic acid [9004-61-9]. The results suggest that the parathyroid hormone-stimulated increase in glucosamine incorporation is mediated via the adenylate cyclase-cyclic AMP system, and that the increased amount of radioactivity is due to an increased amount of hyaluronic acid. Turnover studies of the labeled material suggest that the release of proteoglycans into the culture medium is not inhibited in the cultures treated with I.

L2 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:118424 CAPLUS
DOCUMENT NUMBER: 80:118424
TITLE: Enzyme make-up of the venom of the South Indian scorpion, Heterometrus scaber
AUTHOR(S): Nair, R. Bhaskaran; Kurup, P. A.
CORPORATE SOURCE: Dep. Biochem., Univ. Kerala, Trivandrum, India
SOURCE: Indian Journal of Biochemistry & Biophysics (1973), 10(3), 230-1
CODEN: IJBBBQ; ISSN: 0301-1208
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The enzyme composition of the whole venom of H. scaber was studied. The following enzymes were detected: acid phosphatase, RNase, 5'-nucleotidase, hyaluronidase, acetylcholinesterase, and phospholipase A2. The venom also showed intense hemolytic activity in the presence of lecithin and inhibited succinate dehydrogenase.

L2 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1972:549856 CAPLUS
DOCUMENT NUMBER: 77:149856
TITLE: Enzymic activities of venom from the jellyfish Stomolophus meleagris
AUTHOR(S): Toom, Paul M.; Chan, David S.
CORPORATE SOURCE: Dep. Chem., Univ. South. Mississippi, Hattiesburg, MS, USA
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1972), 43(2), 435-41
CODEN: CBPBB8; ISSN: 1096-4959
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Lyophilized venom from the nematocysts of the jellyfish S. meleagris was tested for enzymic activity on 28 substrates commonly hydrolyzed by manyanimal toxins. Of the 28 substrates tested, 12 were hydrolyzed. The hydrolysis of these 12 substrates suggests the presence of 5 -nucleotidase, hyaluronidase, phosphatase (both acid and alkaline), phosphodiesterase, leucine aminopeptidase, and proteases. A comparison of the enzymic nature of the venom with other animal toxins (especially snake venoms) is made.

L2 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:96854 CAPLUS
DOCUMENT NUMBER: 72:96854
TITLE: Separation of central-Asian cobra venom by means of gel filtration through Sephadex and determination of biological activity of the resulting fractions
AUTHOR(S): Turakulov, Ya. Kh.; Sakhibov, D. N.; Sorokin, V. M.; Yukel'son, L. Ya.
CORPORATE SOURCE: Inst. Biochem., Tashkent, USSR
SOURCE: Biokhimiya (Moscow) (1969), 34(6), 1119-22
CODEN: BIOHAO; ISSN: 0320-9725
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Gel filtration through Sephadex G-75 resolved cobra venom into (1) a fraction possessing no toxic action (ATP pyrophosphatase, 5'-nucleotidase, hyaluronidase, and cholinesterase) and (2) a fraction containing phospholipase A and neurotoxin. Employing gel filtration, ATP pyrophosphatase, hyaluronidase, 5'-nucleotidase, phospholipase A, and cholinesterase were purified 11, 6, 10, 1.9 and 19-fold, resp.

L2 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1961:113209 CAPLUS
DOCUMENT NUMBER: 55:113209
ORIGINAL REFERENCE NO.: 55:21323f-g
TITLE: Histochemical observations on vitiligenous skin
AUTHOR(S): Chaudhuri, S. N.; Chakraborty, A. N.
SOURCE: Journal of the Indian Medical Association (1958), 30, 141-3
From: Excerpta Med. Sect. XIII, 13, Abstr. No. 1512(1959).
CODEN: JIMAAD; ISSN: 0019-5847
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB In the vitiligenous skin tyrosine is deficient; the basal cells of epidermis of the affected area contain less ribonucleic acid than the normal skin; most of the nuclei of the basal cells and prickle cells of the affected area are larger in size than those of the normal area; the nucleoli are more fragmented and showed relatively weaker reaction for deoxyribonucleic acid, but the reaction for hyaluronic acid type polysaccharides and for alkaline phosphatase was relatively stronger in nucleoli.

L2 ANSWER 14 OF 19 MEDLINE on STN
ACCESSION NUMBER: 92191580 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1799979
TITLE: A comparative study of the biological properties of some venoms of snakes of the genus Bothrops (American lance-headed viper).
AUTHOR: Tan N H; Ponnudurai G
CORPORATE SOURCE: Department of Biochemistry, University of Malaya, Kuala Lumpur.
SOURCE: Comparative biochemistry and physiology. B, Comparative biochemistry, (1991) Vol. 100, No. 2, pp. 361-5.
Journal code: 2984730R. ISSN: 0305-0491.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199204
ENTRY DATE: Entered STN: 9 May 1992
Last Updated on STN: 9 May 1992
Entered Medline: 21 Apr 1992

AB 1. The hemorrhagic, procoagulant, anticoagulant, phosphodiesterase, alkaline phosphomonoesterase, 5'-nucleotidase, hyaluronidase, arginine ester hydrolase, phospholipase A, L-amino acid oxidase and protease activities of 26 samples of venoms from 13 species of Bothrops were determined, and the Sephadex G-75 gel filtration patterns for some of the venoms also examined. 2. The results show that while there are considerable individual variations in the biological activities of many of the Bothrops venoms tested, there are some common characteristics at the genus and species levels. 3. The differences in the biological properties of the Bothrops venoms tested can be used for the differentiation of most Bothrops species examined.

L2 ANSWER 15 OF 19 MEDLINE on STN
ACCESSION NUMBER: 92111255 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1764914
TITLE: A comparative study of the biological properties of some sea snake venoms.
AUTHOR: Tan N H; Ponnudurai G
CORPORATE SOURCE: Department of Biochemistry, University of Malaya, Lumpur, Malaysia.
SOURCE: Comparative biochemistry and physiology. B, Comparative biochemistry, (1991) Vol. 99, No. 2, pp. 351-4.
Journal code: 2984730R. ISSN: 0305-0491.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199202
ENTRY DATE: Entered STN: 8 Mar 1992
Last Updated on STN: 3 Mar 2000
Entered Medline: 20 Feb 1992

AB 1. The protease, phosphodiesterase, alkaline phosphomonoesterase, L-amino acid oxidase, acetylcholinesterase, phospholipase A, 5'-nucleotidase, hyaluronidase, arginine ester hydrolase, procoagulant, anticoagulant and hemorrhagic activities of ten samples of venoms from seven taxa of sea snakes were examined. 2. The results show that venoms of sea snakes of both subfamilies of Hydrophiinae and Laticaudinae are characterized by a very low level of enzymatic activities, except phospholipase A activity and, for some species, hyaluronidase activity. 3. Because of the low levels of enzymatic

activities and the total lack of procoagulant and hemorrhagic activities, venom biological properties are not useful for the differentiation of species of sea snakes. Nevertheless, the unusually low levels of enzymatic activities of sea snake venoms may be used to distinguish sea snake venoms from other elapid or viperid venoms.

L2 ANSWER 16 OF 19 MEDLINE on STN
ACCESSION NUMBER: 91300820 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1676959
TITLE: A comparative study of the biological activities of rattlesnake (genera Crotalus and Sistrurus) venoms.
AUTHOR: Tan N H; Ponnudurai G
CORPORATE SOURCE: Department of Biochemistry, University of Malaya, Kuala Lumpur, Malaysia.
SOURCE: Comparative biochemistry and physiology. C, Comparative pharmacology and toxicology, (1991) Vol. 98, No. 2-3, pp. 455-61.
Journal code: 8310013. ISSN: 0742-8413.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199108
ENTRY DATE: Entered STN: 8 Sep 1991
Last Updated on STN: 3 Mar 2000
Entered Medline: 21 Aug 1991

AB 1. The hemorrhagic, procoagulant, anticoagulant, protease, arginine ester hydrolase, phosphodiesterase, alkaline phosphomonoesterase, 5'-nucleotidase, hyaluronidase, phospholipase A and L-amino acid oxidase activities of 50 venom samples from 20 taxa of rattlesnake (genera Crotalus and Sistrurus) were examined. 2. The results show that notwithstanding individual variations in the biological activities of Crotalus venoms and the wide ranges of certain biological activities observed, there are some common characteristics at the genus and species levels. 3. The differences in biological activities of the venoms compared can be used for differentiation of the species. Particularly useful for this purpose are the thrombin-like enzyme, protease, arginine ester hydrolase, hemorrhagic and phospholipase A activities and kaolin-cephalin clotting time measurements.

L2 ANSWER 17 OF 19 MEDLINE on STN
ACCESSION NUMBER: 90235570 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2158874
TITLE: A comparative study of the biological activities of venoms from snakes of the genus Agkistrodon (moccasins and copperheads).
AUTHOR: Tan N H; Ponnudurai G
CORPORATE SOURCE: Department of Biochemistry, University of Malaya, Kuala Lumpur, Malaysia.
SOURCE: Comparative biochemistry and physiology. B, Comparative biochemistry, (1990) Vol. 95, No. 3, pp. 577-82.
Journal code: 2984730R. ISSN: 0305-0491.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199006
ENTRY DATE: Entered STN: 6 Jul 1990
Last Updated on STN: 6 Feb 1998
Entered Medline: 4 Jun 1990

AB 1. The hemorrhagic, procoagulant, anticoagulant, phosphodiesterase, alkaline phosphomonoesterase, 5'-nucleotidase, hyaluronidase, arginine ester hydrolase, phospholipase A, L-amino acid oxidase and protease activities of 31 samples of venom from three species of Agkistrodon (A. bilineatus, A. contortrix and A. piscivorus) and 10 venom samples from five other related species belonging to the same tribe of Agkistrodontini were examined. 2. The results indicate that interspecific differences in certain biological activities of the Agkistrodon venoms are more marked than individual variations of the activities, and that these differences can be used for differentiation of the species. Particularly useful for this purpose are the phosphodiesterase, arginine ester hydrolase and anticoagulant activities of the venoms. 3. Venoms of the subspecies of A. contortrix and A. piscivorus do not differ significantly in their biological activities.

L2 ANSWER 18 OF 19 MEDLINE on STN
ACCESSION NUMBER: 80050832 MEDLINE
DOCUMENT NUMBER: PubMed ID: 501150
TITLE: Extracellular factors, blood group antigens, and bacteriophage of nephritogenic and nonnephritogenic strains of M-type 12 streptococci.
AUTHOR: Potter E V; Moran A F
SOURCE: The Journal of infectious diseases, (1979 Sep) Vol. 140, No. 3, pp. 392-6.
Journal code: 0413675. ISSN: 0022-1899.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198001
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 15 Mar 1990
Entered Medline: 19 Jan 1980
AB Strains of M-type 12 streptococci from 18 patients with acute glomerulonephritis and 18 patients with uncomplicated pharyngitis were analyzed for in vitro production of streptolysin O, diphosphopyridine nucleotidase, hyaluronidase, streptokinase, streptolysin S, proteinase, hyaluronic acid, and fibrinogen-precipitating factor. In addition, relations to blood group antigens, lysogeny, and susceptibility to bacteriophage were determined. No significant differences were found between strains from nephritic and nonnephritic patients. By not indicating a role in the pathogenesis of poststreptococcal acute glomerulonephritis for any of the factors studied, these observations diminish the probability that these factors are of specific importance in this disease and thus direct our attention elsewhere.

L2 ANSWER 19 OF 19 MEDLINE on STN
ACCESSION NUMBER: 75090965 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1111582
TITLE: Investigations on the venom of the South Indian scorpion Heterometrus scaber.
AUTHOR: Nair R B; Kurup P A
SOURCE: Biochimica et biophysica acta, (1975 Jan 13) Vol. 381, No. 1, pp. 165-74.
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197505
ENTRY DATE: Entered STN: 10 Mar 1990
Last Updated on STN: 6 Feb 1998

Entered Medline: 21 May 1975

AB The enzymes from the venom of Heterometrus scaber, the indole compounds present and the toxic protein of the venom have been studied. The venom contains acid phosphatase, ribonuclease, 5'-nucleotidase, hyaluronidase, acetylcholine esterase and phospholipase. A. The indole compounds present in the venom have been identified as 5-hydroxytryptophan, tryptophan, serotonin and tryptamine, along with two unidentified indole compounds. The venom produces hyperglycaemia in sublethal doses and this has been found to be due to increased adrenaline secretion. The toxic protein of the venom has been obtained in a pure form by (NH4)2SO4 fractionation, followed by fractional precipitation with acetone and chromatography over DEAE-Sephadex. The toxic fraction has been found to be homogeneous on acrylamide gel electrophoresis. It is a glycoprotein (molecular weight 15 000) containing 1.74% glucosamine, 0.87% galactosamine, 0.313% sialic acid, 3.25% fucose and 0.45% of an unidentified neutral sugar. It did not show any enzyme activities, haemolytic activity or inhibition of succinate dehydrogenase activity but it produced hyperglycaemia in sublethal doses. The toxic level (intravenous administration in rats) was found to be 0.72 mg/kg body weight.

L2 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1071454 CAPLUS
DOCUMENT NUMBER: 142:52856
TITLE: Intracellular hyaluronan in arterial smooth muscle cells: Association with microtubules, RHAMM, and the mitotic spindle
AUTHOR(S): Evanko, Stephen P.; Parks, W. Tony; Wight, Thomas N.
CORPORATE SOURCE: Hope Heart Program-Benaroya Research Institute at Virginia Mason, Seattle, WA, USA
SOURCE: Journal of Histochemistry and Cytochemistry (2004), 52(12), 1525-1535
CODEN: JHCYAS; ISSN: 0022-1554
PUBLISHER: Histochemical Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Although considered a pericellular matrix component, hyaluronan was recently localized in the cytoplasm and nucleus of proliferating cells, supporting earlier reports that hyaluronan was present in locations such as the nucleus, rough endoplasmic reticulum, and caveloae. This suggests that it can play roles both inside and outside the cell. Hyaluronan metabolism is coupled to mitosis and cell motility, but it is not clear if intracellular hyaluronan assocs. with cytoskeletal elements or plays a structural role. Here we report the distribution of intracellular hyaluronan, microtubules, and RHAMM in arterial smooth muscle cells in vitro. The general distribution of intracellular hyaluronan more closely resembled microtubule staining rather than actin filaments. Hyaluronan was abundant in the perinuclear microtubule-rich areas and was present in lysosomes, other vesicular structures, and the nucleolus. Partially fragmented fluorescein-hyaluronan was preferentially translocated to the perinuclear area compared with high-mol.-weight hyaluronan. In the mitotic spindle, hyaluronan colocalized with tubulin and with the hyaladherin RHAMM, a cell surface receptor and microtubule-associated protein that interacts with dynein and maintains spindle pole stability. Internalized fluorescein-hyaluronan was also seen at the spindle. Following telophase, an abundance of hyaluronan near the mid-body microtubules at the cleavage furrow was also noted. In permeabilized cells, fluorescein-hyaluronan bound to RHAMM-associated microtubules. These findings suggest novel functions for hyaluronan in cellular physiol.
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:599342 CAPLUS
DOCUMENT NUMBER: 141:254712
TITLE: Studies on the membrane integrity of human sperm treated with a new injectable male contraceptive
AUTHOR(S): Chaudhury, K.; Bhattacharyya, A. K.; Guha, S. K.
CORPORATE SOURCE: School of Medical Science and Technology, Indian Institute of Technology, 721302, India
SOURCE: Human Reproduction (2004), 19(8), 1826-1830
CODEN: HUREEE; ISSN: 0268-1161
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aim of this study was to evaluate the integrity of sperm surface characteristics in the presence of a new male contraceptive, RISUG [1 mg styrene maleic anhydride (SMA)/100 μl dimethylsulfoxide (DMSO) in 1 mL sperm solution]. Progressively motile human sperm were treated in vitro with RISUG. The cells were analyzed for the release of 5'-nucleotidase (5'-NT) (a plasma membrane marker) using 3 mmol/l 5'-AMP and 3 mmol/l β-glycerophosphate as substrates. Hyaluronidase (an acrosomal membrane marker) was analyzed using hyaluronic acid as a substrate. The contents of free and total acrosin, and % proacrosin (all acrosome

markers) were assayed using 0.5 mmol/l α-N-benzoyl-L-arginine ethylester (BAEE). RISUG caused almost complete disintegration of the plasma membrane leading to significant (P<0.0001) release of 5'-NT into the surrounding media. Complete dissoln. of the acrosome with concomitant vesiculation of the membrane system, as judged from the loss of hyaluronidase, was observed Total acrosin content in the sperm was also reduced to almost 10%, and proacrosin dropped to 13.2% in the presence of RISUG in comparison to 90.2% in control (P<0.0001), indicating dispersion of acrosomal contents. Under in vitro conditions, RISUG, at a concentration of 1 mg SMA dissolved in 100 μl of DMSO, caused significant damage to the acrosome and its contents, indicating loss of functional ability of sperm.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:219520 CAPLUS
DOCUMENT NUMBER: 122:106332
TITLE: Synthesis of sulfonated hyaluronan derivatives containing nucleic acid bases
AUTHOR(S): Wada, Takehiko; Chirachanchai, Suwabun; Izawa, Naoto; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Dep. Applied Fine Chem., Fac. Eng., Osaka Univ., Osaka, 565, Japan
SOURCE: Chemistry Letters (1994), (11), 2027-30
CODEN: CMLTAG; ISSN: 0366-7022
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The conjugation of nucleic acid base with sulfonated hyaluronan was achieved by the ring opening reaction of 1,2-O-ethano derivs. of nucleic acid bases. The conditions of sulfonation of sodium hyaluronate were studied. Thymine and 5-bromouracil base were quant. conjugated to sulfonated hyaluronan in 15% and 24%, resp.

L2 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:209445 CAPLUS
DOCUMENT NUMBER: 116:209445
TITLE: A comparative study of the biological properties of some venoms of snakes of the genus Bothrops (American lance-headed viper)
AUTHOR(S): Tan, Nget Hong; Ponnudurai, Gnanajothy
CORPORATE SOURCE: Dep. Biochem., Univ. Malaya, Kuala Lumpur, Mex.
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1991), 100B(2), 361-5
CODEN: CBPBB8; ISSN: 0305-0491
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The hemorrhagic, procoagulant, anticoagulant, phosphodiesterase, alkaline phosphomonoesterase, 5'-nucleotidase, hyaluronidase, arginine ester hydrolase, phospholipase A, L-amino acid oxidase, and protease activities of 26 samples of venoms from 13 species of Bothrops were determined, and the Sephadex G-75 gel filtration patterns for some of the venoms was examined While there are considerable individual variations in the biol. activities of many of the Bothrops venoms tested, there are some common characteristics at the genus and species levels. The differences in the biol. properties of the Bothrops venoms tested can be used for the differentiation of most Bothrops species examined

L2 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:487192 CAPLUS
DOCUMENT NUMBER: 115:87192
TITLE: A comparative study of the biological properties of

some sea snake venoms
AUTHOR(S): Tan, Nget Hong; Ponnudurai, Gnanajothy
CORPORATE SOURCE: Dep. Biochem., Univ. Malaya, Kuala Lumpur, Malay.
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1991), 99B(2), 351-4
CODEN: CBPBB8; ISSN: 0305-0491
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The protease, phosphodiesterase, alkaline phosphomonoesterase, L-amino acid oxidase, acetylcholinesterase, phospholipase A, 5'-nucleotidase, hyaluronidase, arginine ester hydrolase, procoagulant, anticoagulant, and hemorrhagic activities of ten samples of venoms from seven taxa of sea snakes were examined The results show that venoms of sea snakes of both subfamilies of Hydrophiinae and Laticaudinae are characterized by a very low level of enzymic activities, except phospholipase A activity and, for some species, hyaluronidase activity. Because of the low levels of enzymic activities and the total lack of procoagulant and hemorrhagic activities, venom biol. properties are not useful for the differentiation of species of sea snakes. Nevertheless, the unusually low levels of enzymic activities of sea snake venoms may be used to distinguish sea snake venoms from other elapid or viperid venoms.

L2 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:201435 CAPLUS
DOCUMENT NUMBER: 114:201435
TITLE: A comparative study of the biological activities of rattlesnake (genera Crotalus and Sistrurus) venoms
AUTHOR(S): Tan, Nget Hong; Ponnudurai, Gnanajothy
CORPORATE SOURCE: Dep. Biochem., Univ. Malaya, Kuala Lumpur, Malay.
SOURCE: Comparative Biochemistry and Physiology, Part C: Pharmacology, Toxicology & Endocrinology (1991), 98C(2-3), 455-61
CODEN: CBPCEE; ISSN: 0742-8413
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The hemorrhagic, procoagulant, anticoagulant, protease, arginine ester hydrolase, phosphodiesterase, alkaline phosphomonoesterase, 5'-nucleotidase, hyaluronidase, phospholipase A, and L-amino acid oxidase activities of 50 venom samples from 20 taxa of rattlesnakes (genera Crotalus and Sistrurus) were examined Notwithstanding individual variations in the biol. activities of Crotalus venoms and the wide ranges of certain biol. activities observed, there are some common characteristics at the genus and species levels. The differences in biol. activities of the venoms compared can be used for differentiation of the species. Particularly useful for this purpose are the thrombin-like enzyme, protease, arginine ester hydrolase, hemorrhagic and phospholipase A activities, and kaolin-cephalin clotting time measurements.

L2 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:401813 CAPLUS
DOCUMENT NUMBER: 113:1813
TITLE: A comparative study of the biological properties of krait (genus Bungarus) venoms
AUTHOR(S): Tan, Nget Hong; Ponnudurai, Gnanajothy
CORPORATE SOURCE: Dep. Biochem., Univ. Malaya, Kuala Lumpur, Malay.
SOURCE: Comparative Biochemistry and Physiology, Part C: Pharmacology, Toxicology & Endocrinology (1990), 95C(1), 105-9
CODEN: CBPCEE; ISSN: 0742-8413
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The i.v. median LDs (LD50), protease, phosphodiesterase, alkaline phosphomonoesterase, L-amino acid oxidase, acetylcholinesterase, phospholipase A, 5'-nucleotidase, hyaluronidase, and

anticoagulant activities of 14 samples of venoms from the 4 common species of krait (B. caeruleus, B. candidus, B. multicinctus, and B fasciatus) were examined Even though there are individual variations in biol. properties of the krait venoms, interspecific differences in the properties can be used for differentiation of the venoms from the 4 species of Bungarus. Particularly useful for this purpose are the LD50's and the contents of 5'-nucleotidase and hyaluronidase of the venoms.

L2 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:193524 CAPLUS
DOCUMENT NUMBER: 112:193524
TITLE: A comparative study of the biological activities of venoms from snakes of the genus Agkistrodon (moccasins and copperheads)
AUTHOR(S): Tan, Nget Hong; Ponnudurai, Gnanajothy
CORPORATE SOURCE: Dep. Biochem., Univ. Malaya, Kuala Lumpur, Malay.
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1990), 95B(3), 577-82
CODEN: CBPBB8; ISSN: 0305-0491
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The hemorrhagic, procoagulant, anticoagulant, phosphodiesterase, alkaline phosphomonoesterase, 5'-nucleotidase, hyaluronidase, arginine ester hydrolase, phospholipase A, L-amino acid oxidase and protease activities of 31 samples of venom from 3 species of Agkistrodon (A. bilineatus, A. contortrix, and A. piscivorus) and 10 venom samples from 5 other related species belonging to the same tribe of Agkistrodontini were examined The interspecific differences in certain biol. activities of the Agkistrodon venoms are more marked than individual variations of the activities, and that these differences can be used for differentiation of the species. Particularly useful for this purpose are the phosphodiesterase, arginine ester hydrolase and anticoagulant activities of the venoms. Venoms of the subspecies of A. contortrix and A. piscivorus do not differ significantly in their biol. activities.

L5 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:361017 CAPLUS
DOCUMENT NUMBER: 122:142456
TITLE: Transport performance of nucleosides through nucleic acid bases-conjugated hyaluronan
AUTHOR(S): Chirachanchai, Suwabun; Wada, Takehiko; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Chemistry Letters (1995), (2), 121-2
CODEN: CMLTAG; ISSN: 0366-7022
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The transport performance of nucleosides through the membranes of hyaluronic acid and deacetylated hyaluronan conjugated with nucleic acid base derivs. has been studied under varied temperature Partition coefficient values of the permeants and permeabilities of the membranes showed the selectivity of nucleosides due to the effect of specific interaction between the permeants and nucleic acid base moiety in the membrane.

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:433623 CAPLUS
DOCUMENT NUMBER: 73:33623
TITLE: Effect of hyaluronidase and nucleosides on vascular permeability in sheep and its suppression by mepyramine maleate
AUTHOR(S): Vegad, J. L.
CORPORATE SOURCE: Dep. Anim. Health, Massey Univ., Palmerston North, N. Z.
SOURCE: Indian Journal of Experimental Biology (1970), 8(2), 141-2
CODEN: IJEBA6; ISSN: 0019-5189
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Hyaluronidase showed no significant action on vascular permeability in the sheep skin. The small permeability response evoked appears to be mediated by the release of histamine. Although hyaluronidase exerted a spreading effect, it did not potentiate the permeability activity of histamine. Results obtained with various nucleosides, viz. adenosine, guanosine, inosine, and xanthosine, indicate that in the sheep these substances also produce their activity by releasing histamine.

L8 ANSWER 37 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:487078 CAPLUS
DOCUMENT NUMBER: 101:87078
TITLE: Pectinolytic enzymes of oral spirochetes from humans
AUTHOR(S): Weber, Frederick H.; Canale-Parola, E.
CORPORATE SOURCE: Dep. Microbiol., Univ. Massachusetts, Amherst, MA, 01003, USA
SOURCE: Applied and Environmental Microbiology (1984), 48(1), 61-7
CODEN: AEMIDF; ISSN: 0099-2240
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Five strains of obligately anaerobic, pectin-fermenting spirochetes were isolated from the subgingival plaque of humans. The strains produced 2 extracellular enzymic activities that functioned in pectin degradation One of these enzymic activities was pectin methylesterase (EC 3.1.1.11), and the other was pectate lyase (EC 4.2.2.2) of the endo type. The cumulative action of these 2 enzymic activities brought about depolymn. of pectin in spirochete cultures. Pectin- or polygalacturonate-degrading hydrolases were not detected. A cell-associated lyase activity that catalyzed polygalacturonate breakdown was present in one of the spirochete strains. In addition to pectin, the isolates utilized polygalacturonic, glucuronic, or galacturonic acid as fermentable substrate but did not utilize neutral sugars, amino acids, or other substrates tested. Although the oral spirochetes did not ferment hyaluronic acid, 1 of the strains grew in coculture with a hyaluronidase-producing Peptostreptococcus strain in a medium containing hyaluronic acid as fermentable substrate. Two of the isolates were identified as Treponema pectinovorum strains on the basis of their substrate utilization pattern, end products of fermentation, other phenotypic characteristics, and the guanine-plus-cytosine content of their DNA. Even though the pectinolytic isolates were specialized with respect to the fermentable substrates they utilized, they appeared to complete successfully with other microorganisms in their habitat.

L8 ANSWER 38 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1956:74462 CAPLUS
DOCUMENT NUMBER: 50:74462
ORIGINAL REFERENCE NO.: 50:14040d-e
TITLE: The action of Aureomycin on the bacteriophage virus
AUTHOR(S): Mondolfo, Hugo; de Mondolfo, Elsa Hounie
SOURCE: Rev. asoc. bioquim. argentina (1956), 21, 3-5
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C.A. 49, 16045b; 50, 14039a. The development of bacteriophage virus (I) in presence of Escherichia coli strains 02 and 09 in phase M was inhibited if 0.1-1 γ Aureomycin (II) or achromycin (III) per cc. was added after 1-30 min. E. coli did not inhibit I. This result was not changed by use of E. coli with strong or especially developed mucus capsules or after their removal with 25 units of hyaluronidase per cc. The action of II or III on I in presence of E. coli was inhibited by guanine or nicotinamide. II or III does not alter the permeability of E. coli cells but changes their metabolism in such a way as to render them resistant to I.

L8 ANSWER 39 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1955:85021 CAPLUS
DOCUMENT NUMBER: 49:85021
ORIGINAL REFERENCE NO.: 49:16072a-e
TITLE: Effect of some compounds and biological products upon infection by tobacco mosaic virus
AUTHOR(S): Dale, J. L.; Thornberry, H. H.
CORPORATE SOURCE: Univ. of Illinois, Urbana

SOURCE: Trans. Ill. Acad. Sci. (1955), 47, 65-71
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB An infection index consisting of the ratio of the number of local lesions on treated half leaves to the number on control half leaves was established for additives in virus inoculum at varying pH values after abrasion of test plants. Indexes of compds. varied with pH. Indexes greater than 1.5 were observed for acridine red and methyl green, glue, glycine, L-histidine, lysine, DL-methionine, DL-tryptophan, adenosine, adenosinediphosphate, cytidine, cytosine, 2-thiocytosine, protamine nucleinate, D-ribose, uracil, 5-aminouracil, 6-methyluracil, naphthaleneacetic acid, glycylglycine, glycylglycylglycine, glycyl-L-tryptophan, glycerophosphate, Na formate, sorbitol, and catalase; indexes less than 0.5 for acridine yellow, fluorescein, basic fuchsin, iodine green, malachite green, methyl blue, methyl green, orange II, thionine, toluidine blue O, tryptan blue, vita stain, beef blood serum, beef extract, dried blood, casein, edestin, lactalbumin, malt extract, skim milk, thiotone, yeast extract, arginine, asparagine, D-glutamic acid, L-histidine, lysine, adenosinetriphosphate, adenylic acid, cytidylic acid, DNA, 2,6-diaminopurine sulfate, guanylic acid, Na nucleinate, 2,4-dichloro-6-methylpyrimidine, diazouracil, thiouracil, hypoxanthine, indole-3-acetic acid, glycolic acid, orcinol, soybean trypsin inhibitor, tannic acid, thioglycolate, α-amylase, β-amylase, cozymase, β-glucuronidase, hemicellulase, hyaluronidase, lactase, lysozyme, pectinase, rennin, lipase, crystalline trypsin, powdered trypsin, urease; and indexes between 0.5 and 1.5 (considered to be inactive) for acid fuchsin, orcein, pyronine B, pyronine 2-G, quinoline yellow, Sudan IV, egg albumin, gelatin, gelysate, lactalysate, myosate, phytone, polypeptone, trypticase, L-threonine, DL-alanyl-DL-alanine, adenine, adenosine, isocytosine, guanine, guanosine, 2-amino-4-methyl-pyrimidine, 2,4-dichloropyrimidine, 2,6-dichloropyrimidine, thymine, 5-methylthiouracil, 6-methylthiouracil, uridine, uridylic acid, xanthine, xanthosine, indolebutyric acid, 3-indolepropionic acid, alanylglycylglycine, DL-leucylglycine, DL-leucylglycylglycylglycine, glycyltyrosine, cocoa, glucose-1-phosphate, glucose-6-phosphate, glucosamine-HCl, glutathione, Mn glycerophosphate, hexose diphosphate, inulin, melizitose, phloroglucinol, phytol, resorcinol, salicin, and diastase.

L8 ANSWER 40 OF 47 MEDLINE on STN
ACCESSION NUMBER: 2006268793 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16565089
TITLE: Hyaluronan-CD44 interaction with leukemia-associated RhoGEF and epidermal growth factor receptor promotes Rho/Ras co-activation, phospholipase C epsilon-Ca2+ signaling, and cytoskeleton modification in head and neck squamous cell carcinoma cells.
AUTHOR: Bourguignon Lilly Y W; Gilad Eli; Brightman Amy; Diedrich Falko; Singleton Patrick
CORPORATE SOURCE: Department of Medicine, University of California at San Francisco and Endocrine Unit (111N), Veterans Affairs Medical Center, San Francisco, California 94121, USA.. lillyb@itsa.ucsf.edu
CONTRACT NUMBER: P01 AR39448 (NIAMS)
R01 CA66163 (NCI)
R01 CA78633 (NCI)
SOURCE: The Journal of biological chemistry, (2006 May 19) Vol. 281, No. 20, pp. 14026-40. Electronic Publication: 2006-03-24.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200607
ENTRY DATE: Entered STN: 16 May 2006
Last Updated on STN: 22 Jul 2006
Entered Medline: 21 Jul 2006

AB In this study we have examined the interaction of CD44 (a major hyaluronan (HA) receptor) with a RhoA-specific guanine nucleotide exchange factor (leukemia-associated RhoGEF (LARG)) in human head and neck squamous carcinoma cells (HNSCC-HSC-3 cell line). Immunoprecipitation and immunoblot analyses indicate that CD44 and the LARG protein are expressed in HSC-3 cells and that these two proteins are physically associated as a complex. HA-CD44 binding induces LARG-specific RhoA signaling and phospholipase C epsilon (PLC epsilon) activity. In particular, the activation of RhoA-PLC epsilon by HA stimulates inositol 1,4,5-triphosphate production, intracellular Ca2+ mobilization, and the up-regulation of Ca2+/calmodulin-dependent kinase II (CaMKII), leading to phosphorylation of the cytoskeletal protein, filamin. The phosphorylation of filamin reduces its interaction with filamentous actin, promoting tumor cell migration. The CD44-LARG complex also interacts with the EGF receptor (EGFR). Most importantly, the binding of HA to the CD44-LARG-EGFR complex activates the EGFR receptor kinase, which in turn promotes Ras-mediated stimulation of a downstream kinase cascade including the Raf-1 and ERK pathways leading to HNSCC cell growth. Using a recombinant fragment of LARG (the LARG-PDZ domain) and a binding assay, we have determined that the LARG-PDZ domain serves as a direct linker between CD44 and EGFR. Transfection of the HSC-3 cells with LARG-PDZcDNA significantly reduces LARG association with CD44 and EGFR. Overexpression of the LARG-PDZ domain also functions as a dominant-negative mutant (similar to the PLC/Ca2+-calmodulin-dependent kinase II (CaMKII) and EGFR/MAPK inhibitor effects) to block HA/CD44-mediated signaling events (e.g. EGFR kinase activation, Ras/RhoA co-activation, Raf-ERK signaling, PLC epsilon-mediated inositol 1,4,5-triphosphate production, intracellular Ca2+ mobilization, CaMKII activity, filamin phosphorylation, and filamin-actin binding) and to abrogate tumor cell growth/migration. Taken together, our findings suggest that CD44 interaction with LARG and EGFR plays a pivotal role in Rho/Ras co-activation, PLC epsilon-Ca2+ signaling, and Raf/ERK up-regulation required for CaMKII-mediated cytoskeleton function and in head and neck squamous cell carcinoma progression.

L8 ANSWER 41 OF 47 MEDLINE on STN
ACCESSION NUMBER: 2003363431 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12748184
TITLE: Hyaluronan-mediated CD44 interaction with RhoGEF and Rho kinase promotes Grb2-associated binder-1 phosphorylation and phosphatidylinositol 3-kinase signaling leading to cytokine (macrophage-colony stimulating factor) production and breast tumor progression.
AUTHOR: Bourguignon Lilly Y W; Singleton Patrick A; Zhu Hongbo; Diedrich Falko
CORPORATE SOURCE: Department of Medicine, University of California at San Francisco and the Endocrine Unit (111N), Veterans Affairs Medical Center, San Francisco, Calfornia 94121, USA.. lillyb@itsa.ucsf.edu
SOURCE: The Journal of biological chemistry, (2003 Aug 8) Vol. 278, No. 32, pp. 29420-34. Electronic Publication: 2003-05-14. Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200309
ENTRY DATE: Entered STN: 5 Aug 2003

Last Updated on STN: 25 Sep 2003
Entered Medline: 24 Sep 2003

AB In this study we have examined CD44 (a hyaluronan (HA) receptor) interaction with a RhoA-specific guanine nucleotide exchange factor (p115RhoGEF) in human metastatic breast tumor cells (MDA-MB-231 cell line). Immunoprecipitation and immunoblot analyses indicate that both CD44 and p115RhoGEF are expressed in MDA-MB-231 cells and that these two proteins are physically associated as a complex in vivo. The binding of HA to MDA-MB-231 cells stimulates p115RhoGEF-mediated RhoA signaling and Rho kinase (ROK) activity, which, in turn, increases serine/threonine phosphorylation of the adaptor protein, Gab-1 (Grb2-associated binder-1). Phosphorylated Gab-1 promotes PI 3-kinase recruitment to CD44v3. Subsequently, PI 3-kinase is activated (in particular, alpha, beta, gamma forms but not the delta form of the p110 catalytic subunit), AKT signaling occurs, the cytokine (macrophage-colony stimulating factor (M-CSF)) is produced, and tumor cell-specific phenotypes (e.g. tumor cell growth, survival and invasion) are up-regulated. Our results also demonstrate that HA/CD44-mediated oncogenic events (e.g. AKT activation, M-CSF production and breast tumor cell-specific phenotypes) can be effectively blocked by a PI 3-kinase inhibitor (LY294002). Finally, we have found that overexpression of a dominant-negative form of ROK (by transfection of MBA-MD-231 cells with the Rho-binding domain cDNA of ROK) not only inhibits HA/CD44-mediated RhoA-ROK activation and Gab-1 phosphorylation but also down-regulates oncogenic signaling events (e.g. Gab-1.PI 3-kinase-CD44v3 association, PI 3-kinase-mediated AKT activation, and M-CSF production) and tumor cell behaviors (e.g. cell growth, survival, and invasion). Taken together, these findings strongly suggest that CD44 interaction with p115RhoGEF and ROK plays a pivotal role in promoting Gab-1 phosphorylation leading to Gab-1.PI 3-kinase membrane localization, AKT signaling, and cytokine (M-CSF) production during HA-mediated breast cancer progression.

L8 ANSWER 42 OF 47 MEDLINE on STN

ACCESSION NUMBER: 2002052750 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11606575
TITLE: Hyaluronan promotes CD44v3-Vav2 interaction with Grb2-p185(HER2) and induces Rac1 and Ras signaling during ovarian tumor cell migration and growth.
AUTHOR: Bourguignon L Y; Zhu H; Zhou B; Diedrich F; Singleton P A; Hung M C
CORPORATE SOURCE: Enocrine Unit, Department of Medicine, University of California and Veterans Affairs Medical Center, San Francisco, California 94121, USA.. lillyb@itsa.ucsf.edu
CONTRACT NUMBER: CA 78633 (NCI)
CA66163 (NCI)
SOURCE: The Journal of biological chemistry, (2001 Dec 28) Vol. 276, No. 52, pp. 48679-92. Electronic Publication: 2001-10-17.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200201
ENTRY DATE: Entered STN: 25 Jan 2002
Last Updated on STN: 5 Jan 2003
Entered Medline: 31 Jan 2002

AB In this study we initially examined the interaction between CD44v3 (a hyaluronan (HA) receptor) and Vav2 (a guanine nucleotide exchange factor) in human ovarian tumor cells (SK-OV-3.ipl cell line). Immunological data indicate that both CD44v3 and Vav2 are expressed in

SK-OV-3.ipl cells and that these two proteins are physically linked as a complex in vivo. By using recombinant fragments of Vav2 and in vitro binding assays, we have detected a specific binding interaction between the SH3-SH2-SH3 domain of Vav2 and the cytoplasmic domain of CD44. In addition, we have observed that the binding of HA to CD44v3 activates Vav2-mediated Rac1 signaling leading to ovarian tumor cell migration. Further analyses indicate that the adaptor molecule, growth factor receptor-bound protein 2 (Grb2) that is bound to p185(HER2) (an oncogene product), is also associated with the CD44v3-Vav2 complex. HA binding to SK-OV-3.ipl cells promotes recruitment of both Grb2 and p185(HER2) to the CD44v3-Vav2 complex leading to Ras activation and ovarian tumor cell growth. In order to determine the role of Grb2 in CD44v3 signaling, we have transfected SK-OV-3.ipl cells with Grb2 mutant cDNAs (e.g. Delta N-Grb2 that has a deletion in the amino-terminal SH3 domain or Delta C-Grb2 that has a deletion in the carboxyl-terminal SH3 domain). Our results clearly indicate that the SH3 domain deletion mutants of Grb2 (i.e. the Delta N-Grb2 (and to a lesser extent the Delta C-Grb2) mutant) not only block their association with p185(HER2) but also significantly impair their binding to the CD44v3-Vav2 complex and inhibit HA/CD44v3-induced ovarian tumor cell behaviors. Taken together, these findings strongly suggest that the interaction of CD44v3-Vav2 with Grb2-p185(HER2) plays an important role in the co-activation of both Rac1 and Ras signaling that is required for HA-mediated human ovarian tumor progression.

L8 ANSWER 43 OF 47 MEDLINE on STN
ACCESSION NUMBER: 2000191883 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10725329
TITLE: Hyaluronic acid (HA) binding to CD44 activates Rac1 and induces lamellipodia outgrowth.
AUTHOR: Oliferenko S; Kaverina I; Small J V; Huber L A
CORPORATE SOURCE: Research Institute of Molecular Pathology (IMP), A-1030 Vienna, Austria.
SOURCE: The Journal of cell biology, (2000 Mar 20) Vol. 148, No. 6, pp. 1159-64.
Journal code: 0375356. ISSN: 0021-9525.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200004
ENTRY DATE: Entered STN: 5 May 2000
Last Updated on STN: 25 May 2000
Entered Medline: 27 Apr 2000

AB Both cell adhesion protein CD44 and its main ligand hyaluronic acid (HA) are thought to be involved in several processes ultimately requiring cytoskeleton rearrangements. Here, we show that the small guanine nucleotide (GTP)-binding protein, Rac1, can be activated upon HA binding to CD44. When applied locally to a passive cell edge, HA promoted the formation of lamellipodial protrusions in the direction of the stimulus. This process was inhibited by the prior injection of cells with dominant-negative N17Rac recombinant protein or by pretreatment of cells with monoclonal anti-CD44 antibodies, interfering with HA binding, implying the direct involvement of CD44 in signaling to Rac1.

L8 ANSWER 44 OF 47 MEDLINE on STN
ACCESSION NUMBER: 2000102694 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10636882
TITLE: CD44 interaction with tiam1 promotes Rac1 signaling and hyaluronic acid-mediated breast tumor cell migration.
AUTHOR: Bourguignon L Y; Zhu H; Shao L; Chen Y W
CORPORATE SOURCE: Department of Cell Biology and Anatomy, School of Medicine, University of Miami, Miami, Florida 33101, USA..

Lbourgui@mednet.med.miami.edu
CONTRACT NUMBER: CA 78633 (NCI)
CA66163 (NCI)
SOURCE: The Journal of biological chemistry, (2000 Jan 21) Vol. 275, No. 3, pp. 1829-38.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 9 Mar 2000
Last Updated on STN: 9 Mar 2000
Entered Medline: 24 Feb 2000

AB In this study we have explored the interaction between CD44 (the hyaluronic acid (HA)-binding receptor) and Tiam1 (a guanine nucleotide exchange factor) in metastatic breast tumor cells (SP1 cell line). Immunoprecipitation and immunoblot analyses indicate that both the CD44v3 isoform and the Tiam1 protein are expressed in SP1 cells and that these two proteins are physically associated as a complex in vivo. Using an Escherichia coli-derived calmodulin-binding peptide-tagged Tiam1 fragment (i.e. the NH(2)-terminal pleckstrin homology (PHn) domain and an adjacent protein interaction domain designated as PHn-CC-Ex, amino acids 393-738 of Tiam1) and an in vitro binding assay, we have detected a specific binding interaction between the Tiam1 PHn-CC-Ex domain and CD44. Scatchard plot analysis indicates that there is a single high affinity CD44 binding site in the PHn-CC-Ex domain of Tiam1 with an apparent dissociation constant (K(d)) of 0.2 nM, which is comparable with CD44 binding (K(d) = approximately 0.13 nM) to intact Tiam1. These findings suggest that the PHn-CC-Ex domain is the primary Tiam1-binding region for CD44. Most importantly, the binding of HA to CD44v3 of SP1 cells stimulates Tiam1-catalyzed Rac1 signaling and cytoskeleton-mediated tumor cell migration. Transfection of SP1 cells with Tiam1cDNA promotes Tiam1 association with CD44v3 and up-regulates Rac1 signaling as well as HA/CD44v3-mediated breast tumor cell migration. Co-transfection of SP1 cells with PHn-CC-Ex cDNA and Tiam1 cDNA effectively inhibits Tiam1 association with CD44 and efficiently blocks tumor behaviors. Taken together, we believe that the linkage between CD44v3 isoform and the PHn-CC-EX domain of Tiam1 is required for HA stimulated Rac1 signaling and cytoskeleton-mediated tumor cell migration during breast cancer progression.

L8 ANSWER 45 OF 47 MEDLINE on STN
ACCESSION NUMBER: 92162028 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1311176
TITLE: Inhibition of phosphatidylinositol 4-phosphate kinase by heparin. A possible mechanism for the antiproliferative effects of heparin.
AUTHOR: Smith C D; Wen D; Mooberry S L; Chang K J
CORPORATE SOURCE: Molecular Oncology Program, Cancer Research Center of Hawaii, Honolulu 96813.
SOURCE: The Biochemical journal, (1992 Feb 1) Vol. 281 (Pt 3), pp. 803-8.
Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199203
ENTRY DATE: Entered STN: 10 Apr 1992
Last Updated on STN: 3 Mar 2000
Entered Medline: 24 Mar 1992

AB Heparin and related glycosaminoglycans are important modulators of vascular smooth muscle cell growth, and may be involved in pathological processes such as atherosclerosis. Since polyphosphoinositide metabolism is a major mechanism for regulating cellular activities, including proliferation, the effects of glycosaminoglycans and polyanionic compounds on the activities of phosphoinositide kinases were characterized. Heparin and heparan sulphate caused dose-dependent inhibitions of rat brain cytosolic phosphatidylinositol 4-phosphate (PIP) kinase activity, with half-maximal inhibitory concentrations of approx. 0.5 and 5 microM respectively. PIP kinase was also inhibited by several dextran sulphates, but was not sensitive to inhibition by keratin sulphate, chondroitin sulphate or hyaluronic acid. Polynucleotides and acidic polypeptides were only weakly inhibitory. Heparin did not alter either the PIP- or the Mg(2+)-dependence of PIP kinase. Addition of heparin to brain membranes suppressed PIP kinase activity without affecting phosphatidylinositol (PI) kinase activity. Heparin interfered with the ability of a GTP analogue to stimulate PIP kinase activity in these membranes, suggesting that it uncouples the kinase from an activating guanine-nucleotide-binding protein. In cultured A-10 vascular smooth muscle cells, heparin caused dose- and time-dependent inhibition of [3H]thymidine incorporation into DNA. Similar treatments with heparin decreased cellular levels of phosphatidylinositol 4,5-bisphosphate (PIP2) without changing PI and PIP levels. Therefore heparin-mediated inhibition of PIP kinase appears to lead to decreases in PIP2 levels which may attenuate cellular proliferation.

L8 ANSWER 46 OF 47 MEDLINE on STN
ACCESSION NUMBER: 84305888 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6383218
TITLE: Pectinolytic enzymes of oral spirochetes from humans.
AUTHOR: Weber F H; Canale-Parola E
CONTRACT NUMBER: AI-17737 (NIAID)
SOURCE: Applied and environmental microbiology, (1984 Jul) Vol. 48, No. 1, pp. 61-7.
Journal code: 7605801. ISSN: 0099-2240.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198410
ENTRY DATE: Entered STN: 20 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 10 Oct 1984

AB Five strains of obligately anaerobic, pectin-fermenting spirochetes were isolated from the subgingival plaque of humans. The strains produced two extracellular enzymatic activities that functioned in pectin degradation. One of these enzymatic activities was pectin methylesterase (EC 3.1.1.11), and the other was pectate lyase (EC 4.2.2.2) of the endo type. The data indicate that the cumulative action of these two enzymatic activities brought about depolymerization of pectin in spirochete cultures. Pectin- or polygalacturonate-degrading hydrolases were not detected. A cell-associated lyase activity that catalyzed polygalacturonate breakdown was present in one of the spirochete strains. In addition to pectin, the isolates utilized polygalacturonic, glucuronic, or galacturonic acid as fermentable substrate but did not neutral sugars, amino acids, or other substrates tested. Although the oral spirochetes did not ferment hyaluronic acid, one of the strains grew in coculture with a hyaluronidase-producing Peptostreptococcus strain in a medium containing hyaluronic acid as fermentable substrate. Two of the isolates were identified as Treponema pectinovorum strains on the basis of their substrate utilization pattern, end products of fermentation, other phenotypic characteristics, and the guanine-plus-cytosine content of their DNA. Even though the pectinolytic isolates were

specialized with respect to the fermentable substrates they utilized, they appeared to compete successfully with other microorganisms in their habitat.

L8 ANSWER 47 OF 47 MEDLINE on STN
ACCESSION NUMBER: 76005859 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1167183
TITLE: Biochemical characterization of crystals from the dermal iridophores of a chameleon Anolis carolinensis.
AUTHOR: Rohrlich S T; Rubin R W
SOURCE: The Journal of cell biology, (1975 Sep) Vol. 66, No. 3, pp. 635-45.
Journal code: 0375356. ISSN: 0021-9525.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197511
ENTRY DATE: Entered STN: 13 Mar 1990
Last Updated on STN: 13 Mar 1990
Entered Medline: 22 Nov 1975

AB The biochemical characteristics of dermal iridophore crystals from Anolis carolinensis have been investigated. Iridophores isolated by collangenase-hyaluronidase treatment were sonicated and their contents fractionated through sucrose. Pure iridophore crystals so obtained were examined by chromatography and electron diffraction. They were found to be pure hydrated crystalline form. The suggestion is made that the subcrystalline structure of this guanine does not play a role in color production by the iridophore.

L8 ANSWER 27 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:43296 CAPLUS
DOCUMENT NUMBER: 136:230319
TITLE: Hyaluronan promotes CD44v3-Vav2 interaction with Grb2-p185HER2 and induces Rac1 and Ras signaling during ovarian tumor cell migration and growth
AUTHOR(S): Bourguignon, Lilly Y. W.; Zhu, Hongbo; Zhou, Bo; Diedrich, Falko; Singleton, Patrick A.; Hung, Mien-Chie
CORPORATE SOURCE: Department of Medicine, Veterans Affairs Medical Center, University of California and Endocrine Unit, San Francisco, CA, 94121, USA
SOURCE: Journal of Biological Chemistry (2001), 276(52), 48679-48692
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study we initially examined the interaction between CD44v3 (a hyaluronan (HA) receptor) and Vav2 (a guanine nucleotide exchange factor) in human ovarian tumor cells (SK-OV-3.ipl cell line). Immunol. data indicate that both CD44v3 and Vav2 are expressed in SK-OV-3.ipl cells and that these two proteins are phys. linked as a complex in vivo. By using recombinant fragments of Vav2 and in vitro binding assays, we have detected a specific binding interaction between the SH3-SH2-SH3 domain of Vav2 and the cytoplasmic domain of CD44. In addition, we have observed that the binding of HA to CD44v3 activates Vav2-mediated Rac1 signaling leading to ovarian tumor cell migration. Further analyses indicate that the adaptor mol., growth factor receptor-bound protein 2 (Grb2) that is bound to p185HER2 (an oncogene product), is also associated with the CD44v3-Vav2 complex. HA binding to SK-OV-3.ipl cells promotes recruitment of both Grb2 and p185HER2 to the CD44v3-Vav2 complex leading to Ras activation and ovarian tumor cell growth. In order to determine the role of Grb2 in CD44v3 signaling, we have transfected SK-OV-3.ipl cells with Grb2 mutant cDNAs (e.g. N-Grb2 that has a deletion in the amino-terminal SH3 domain or C-Grb2 that has a deletion in the carboxyl-terminal SH3 domain). Our results clearly indicate that the SH3 domain deletion mutants of Grb2 (i.e. the N-Grb2 (and to a lesser extent the C-Grb2) mutant) not only block their association with p185HER2 but also significantly impair their binding to the CD44v3-Vav2 complex and inhibit HA/CD44v3-induced ovarian tumor cell behaviors. Taken together, these findings strongly suggest that the interaction of CD44v3-Vav2 with Grb2-p185HER2 plays an important role in the coactivation of both Rac1 and Ras signaling that is required for HA-mediated human ovarian tumor progression.
REFERENCE COUNT: 98 THERE ARE 98 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 28 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:231868 CAPLUS
DOCUMENT NUMBER: 133:250375
TITLE: Hyaluronic acid (HA) binding to CD44 activates Rac1 and induces lamellipodia outgrowth. [Erratum to document cited in CA132:332562]
AUTHOR(S): Oliferenko, Snezhana; Kaverina, Irina; Small, J. Victor; Huber, Lukas A.
CORPORATE SOURCE: Research Institute Molecular Pathology.(IMP), Vienna, A-1030, Austria
SOURCE: Journal of Cell Biology (2000), 149(1), 241
CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal

LANGUAGE: English
AB The URL for the index of supplemental material associated with Oliferenko et al. appeared incorrectly; the correct address is http://www.jcb.org/cgi/content/full/148/6/1159/DC1.

L8 ANSWER 29 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:202945 CAPLUS
DOCUMENT NUMBER: 132:332562
TITLE: Hyaluronic acid (HA) binding to CD44 activates Rac1 and induces lamellipodia outgrowth
AUTHOR(S): Oliferenko, Snezhana; Kaverina, Irina; Small, J. Victor; Huber, Lukas A.
CORPORATE SOURCE: Research Institute of Molecular Pathology (IMP), Vienna, A-1030, Austria
SOURCE: Journal of Cell Biology (2000), 148(6), 1159-1164
CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Both cell adhesion protein CD44 and its main ligand hyaluronic acid (HA) are thought to be involved in several processes ultimately requiring cytoskeleton rearrangements. Here, we show that the small guanine nucleotide (GTP)-binding protein, Rac1, can be activated upon HA binding to CD44. When applied locally to a passive cell edge, HA promoted the formation of lamellipodial protrusions in the direction of the stimulus. This process was inhibited by the prior injection of cells with dominant-neg. N17Rac recombinant protein or by pretreatment of cells with monoclonal anti-CD44 antibodies, interfering with HA binding, implying the direct involvement of CD44 in signaling to Rac1.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 30 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:81189 CAPLUS
DOCUMENT NUMBER: 132:220474
TITLE: CD44 interaction with Tiam1 promotes Rac1 signaling and hyaluronic acid-mediated breast tumor cell migration
AUTHOR(S): Bourguignon, Lilly Y. W.; Zhu, Hongbo; Shao, Lijun; Chen, You Wei
CORPORATE SOURCE: Department of Cell Biology and Anatomy, School of Medicine, University of Miami, Miami, FL, 33101, USA
SOURCE: Journal of Biological Chemistry (2000), 275(3), 1829-1838
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study we have explored the interaction between CD44 (the hyaluronic acid (HA)-binding receptor) and Tiam1 (a guanine nucleotide exchange factor) in metastatic breast tumor cells (SP1 cell line). Immunopptn. and immunoblot analyses indicate that both the CD44v3 isoform and the Tiam1 protein are expressed in SP1 cells and that these two proteins are phys. associated as a complex in vivo. Using an Escherichia coli-derived calmodulin-binding peptide-tagged Tiam1 fragment (i.e. the NH2-terminal pleckstrin homol. (PHn) domain and an adjacent protein interaction domain designated as PHn-CC-Ex, amino acids 393-738 of Tiam1) and an in vitro binding assay, we have detected a specific binding interaction between the Tiam1 PHn-CC-Ex domain and CD44. Scatchard plot anal. indicates that there is a single high affinity CD44 binding site in the PHn-CC-Ex domain of Tiam1 with an apparent dissociation constant (Kd) of 0.2 nM, which is comparable with CD44 binding (Kd = .apprx.0.13 nM) to intact Tiam1. These findings suggest that the

PHn-CC-Ex domain is the primary Tiam1-binding region for CD44. Most importantly, the binding of HA to CD44v3 of SP1 cells stimulates Tiam1-catalyzed Rac1 signaling and cytoskeleton-mediated tumor cell migration. Transfection of SP1 cells with Tiam1 cDNA promotes Tiam1 association with CD44v3 and up-regulates Rac1 signaling as well as HA/CD44v3-mediated breast tumor cell migration. Co-transfection of SP1 cells with PHn-CC-Ex cDNA and Tiam1 cDNA effectively inhibits Tiam1 association with CD44 and efficiently blocks tumor behaviors. Apparently, the linkage between CD44v3 isoform and the PHn-CC-EX domain of Tiam1 is required for HA stimulated Rac1 signaling and cytoskeleton-mediated tumor cell migration during breast cancer progression.

REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 31 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:719598 CAPLUS
DOCUMENT NUMBER: 127:362471
TITLE: Sulfur-based amides and bis-amides useful against skin disorders
INVENTOR(S): Maes, Daniel H.; Zecchino, Jules; Knight, Althea
PATENT ASSIGNEE(S): Estee Lauder, Inc., USA
SOURCE: U.S., 14 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5683705	A	19971104	US 1996-626769	19960329
US 5948418	A	19990907	US 1997-903525	19970730
PRIORITY APPLN. INFO.:			US 1996-626769	A3 19960329

OTHER SOURCE(S): MARPAT 127:362471
AB Novel sulfhydryl group-containing amides and disulfide group-containing bis-amides
useful for treating or preventing an abnormal biol. condition or a disease, and/or improving the texture or appearance of the skin, as well as compns. containing amides and bis-amides and methods for their use are described. Such types of abnormal biol. conditions or diseases include skin atrophy, i.e., the thinning and/or general degradation of the dermis often characterized by a decrease in collagen and/or elastin as well as decreased number, size and doubling potential of fibroblast cells, and other maladies including, but are not limited to dry skin, severe dry skin, dandruff, acne, Keratosis, psoriasis, eczema, skin flakiness, pruritus, age spots, lentigines, melasmas, wrinkles, warts, blemished skin, hyperpigmented skin, hyperkeratotic skin, inflammatory dermatoses, age-related skin changes and skin in need of cleansers. Preparation of different cysteamine derivs. is described. A cosmetic composition contained water 66.35, phenoxyethanol 0.063, Me paraben 0.018, imidazolidinylurea 0.300, sodium hyaluronate 0.090, water/guanine /isopropyl alc./methyl cellulose mixture 1.000, tetrahydroxypropyl ethylenediamine 0.500, Polysorbate-40 2.500, silicone-2000 2.500, polyacrylamide C13-14 isoparaffin/laureth-7 mixture 5.000, fragrance 0.075, 1% FD&C Yellow no 5 0.026, 1% FD&C Yellow no 6 0.052, 0.5% FD&C Red no 40 0.026, cyclomethicone 15.00, and N,N'-bis(lactyl)cysteamine 10%. Females subjects with dry hand used the formulation twice a day for 2 and 4 wk. Skin flakiness was decreased by 17 and 38% resp.

L8 ANSWER 32 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:103618 CAPLUS
DOCUMENT NUMBER: 116:103618
TITLE: Inhibition of phosphatidylinositol 4-phosphate kinase by heparin. A possible mechanism for the

antiproliferative effects of heparin
AUTHOR(S): Smith, Charles D.; Wen, Dennis; Mooberry, Susan L.; Chang, Kwen Jen
CORPORATE SOURCE: Mol. Oncol. Program, Cancer Res. Cent. Hawaii, Honolulu, HI, 96813, USA
SOURCE: Biochemical Journal (1992), 281(3), 803-8
CODEN: BIJOAK; ISSN: 0306-3275
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Heparin and heparan sulfate caused dose-dependent inhibitions of rat brain cytosolic phosphatidylinositol 4-phosphate (PIP) kinase activity, with half-maximal inhibitory concns. of .apprx.0.5 and 5 μM, resp. PIP kinase was also inhibited by several dextran sulfates, but was not sensitive to inhibition by keratin sulfate, chondroitin sulfate, or hyaluronic acid. Polynucleotides and acidic polypeptides were only weakly inhibitory. Heparin did not alter either the PIP- or the Mg2+-dependence of PIP kinase. Addition of heparin to brain membranes suppressed PIP kinase activity without affecting phosphatidylinositol (PI) kinase activity. Heparin interfered with the ability of a GTP analog to stimulate PIP kinase activity in these membranes, suggesting that it uncouples the kinase from an activating guanine -nucleotide-binding protein. In cultured A-10 vascular smooth muscle cells, heparin caused dose- and time-dependent inhibition of [3H]thymidine incorporation into DNA. Similar treatments with heparin decreased cellular levels of phosphatidylinositol 4,5-bisphosphate (PIP2) without changing PI and PIP levels. Therefore heparin-mediated inhibition of PIP kinase appears to lead to decreases in PIP2 levels which may attenuate cellular proliferation.

L8 ANSWER 33 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:149932 CAPLUS
DOCUMENT NUMBER: 114:149932
TITLE: Manufacture of cosmetic compositions containing cholesteryl ester liquid crystals
INVENTOR(S): Kim, Chang Kyu; Lee, Sang Rin; Lee, Ok Byun; Oh, Sung Kun
PATENT ASSIGNEE(S): Tae Pyung Yang Chemical, S. Korea
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02178209	A	19900711	JP 1988-281519	19881109
PRIORITY APPLN. INFO.:			JP 1988-281519	19881109

AB A cosmetic having a specific color which changes depending upon temperature is prepared containing ≥2 cholesteryl ester liquid crystals and a pearly color (and/or pigment), and a transparent gel base. Thus, a cosmetic composition was prepared by mixing (1) a transparent base consisting of carboxyvinyl polymer 0.5, CM cellulose 0.1, triethanolamine 0.5, hyaluronic acid 0.1, allantoin 0.1, panthenol 0.1, methylparaben 0.2, polyoxyethylene nonylphenyl ether 0.2, glycerin 15.0, EtOH 5.0, perfume 0.1, and water to 100% by weight, and (2) 0.1-10.0% by weight of a liquid crystal mixture comprising
cholesteryl oleyl carbonate 30, cholesteryl oleate 25, cholesteryl acetate 44, and guanine pearly substance 1% by weight

L8 ANSWER 34 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:128817 CAPLUS
DOCUMENT NUMBER: 114:128817
TITLE: Skin care compositions containing carboxylic acid

amides and mucopoysaccharides
INVENTOR(S): Schneider, Emil; Ferone, James J.
PATENT ASSIGNEE(S): Revlon, Inc., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4973473	A	19901127	US 1989-370468	19890623
WO 9100083	A1	19910110	WO 1990-US3595	19900625
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
JP 05504757	T	19930722	JP 1990-509128	19900625

PRIORITY APPLN. INFO.: US 1989-370468 A 19890623
WO 1990-US3595 W 19900625

AB A cosmetic composition comprises a primary moisturizing agent such as gluconamides 0.25-10, a mucopolysaccharide moisturizer 0.2-2, a skin-structuring protein such as glycoproteins 0.05-8, and an astringent 0.1-5%. Thus, a cosmetic composition comprised 2 discrete gel phases. The 1st gel was transparent and colorless and contained methoxypropylgluconamide 0.5, Na hyaluronate and chitin 0.25, propylene glycol 4.0, glycerin 1.0, butylene glycol 3.0, polyglycerin methacrylate and propylene glycol 7.2, chitin extract 4.0, acrylic acid polymer 35.0, triethylamine 1.67, PEG-40 hydrogenated castor oil 0.8, methylparaben 0.15, Na3EDTA 0.5, imidazolidinylurea 0.3, fragrance 0.05, and water to 100%. The second gel was opaque and contained Na hyaluronate and chitin 0.5, propylene glycol 6.0, striated muscle fiber 0.01, hydrolyzed animal elastin and soluble reticulin 0.2, soluble animal collagen and glutaral and propylene glycol 1.0, fibronectin 0.5, chitin extract 5.0, arnica extract 2.0, acrylic acid polymer 28.3, triethylamine 1.46, PEG-40 hydrogenated castor oil 1.2, guanine and water and isoPrOH and Me cellulose 5.0, methylparaben 0.15, Na3EDTA 0.05, imidazolidinylurea 0.3, TiO2 3.0, fragrance 0.15, and water to 100.0%.

L8 ANSWER 35 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:192352 CAPLUS
DOCUMENT NUMBER: 112:192352
TITLE: Identification of allosteric antagonists of receptor-guanine nucleotide-binding protein interactions
AUTHOR(S): Huang, Ruey Ruey C.; Dehaven, Robert N.; Cheung, Anne H.; Diehl, Ronald E.; Dixon, Richard A. F.; Strader, Catherine D.
CORPORATE SOURCE: Dep. Mol. Pharmacol. Biochem., Merck, Sharp, and Dohme Res. Lab., Rahway, NJ, 07065, USA
SOURCE: Molecular Pharmacology (1990), 37(2), 304-10
CODEN: MOPMA3; ISSN: 0026-895X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of compds. that inhibit the coupling of the α2-adrenergic receptor and the β2-adrenergic receptor to the guanine nucleotide-binding proteins (G proteins) Gi and Gs, resp., have been identified. This inhibition of G protein coupling was detected by the ability of the compds. to reduce the affinity of these receptors for agonists without affecting antagonist affinity. Anal. of the structure-activity relationships of these compds. revealed a requirement for regularly spaced anionic substituents on amphipathic structures for this inhibition to occur. The compds. do not interact at the ligand-binding site of the receptor or at the GTP-binding site of the G protein. The identification of compds. that can uncouple receptors for G

proteins demonstrates the potential for the discovery of small mol. inhibitors of receptor-G protein interactions that act as allosteric antagonists at this site.

L8 ANSWER 36 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:54845 CAPLUS
DOCUMENT NUMBER: 110:54845
TITLE: Association of proteoglycans with other extracellular matrix macromolecules in liver
AUTHOR(S): Unnikrishnan, V. S.; Sudhakaran, P. R.
CORPORATE SOURCE: Dep. Biochem., Univ. Kerala, Trivandrum, 695 581, India
SOURCE: Indian Journal of Experimental Biology (1988), 26(10), 784-9
CODEN: IJEBA6; ISSN: 0019-5189
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To study the association of proteoglycans (PG) with other connective tissue macromols. in liver, tissues from normal and CCl4-induced fibrotic rats were sequentially extracted with collagenase and salts. Phosphate buffered saline solubilized nearly 10-14% of the total glycosaminoglycans (GAG), the major component of which was hyaluronic acid. Collagenase digestion of the residue solubilized nearly 15-20% of the total GAG, the major GAG of which were chondroitin sulfates (CS) and dermatan sulfate (DS). The major GAG in liver, heparan sulfate (HS), was not solubilized by any of these treatments. From the residue after collagenase digestion nearly 35-40% of the total GAG could be solubilized by 2M NaCl containing 0.5% Triton X 100, whereas most of the residual GAG could be solubilized by 4M guanine HCl. More than 80% of GAG solubilized by these procedures was HS. Gel chromatog. of the polysaccharide solubilized by various methods before and after protease digestion over Sephacryl S-300 indicated that these polysaccharides were present in a protein bound form. The solubility pattern indicated a possible interaction between CS/DS-proteoglycan and collagen, whereas HS-PG is likely to be associated with other structural components in an extracellular site and(or) cell surface.

L8 ANSWER 17 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:196219 CAPLUS
DOCUMENT NUMBER: 145:186517
TITLE: The accumulation of intracellular ITEGE and DIPEN neoepitopes in bovine articular chondrocytes is mediated by CD44 internalization of hyaluronan
AUTHOR(S): Flory, Jennifer J. Embry; Fosang, Amanda J.; Knudson, Warren
CORPORATE SOURCE: Rush Medical College, Rush University Medical Center, Chicago, IL, USA
SOURCE: Arthritis & Rheumatism (2006), 54(2), 443-454
CODEN: ARHEAW; ISSN: 0004-3591
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A dramatic loss of aggrecan proteoglycan from cartilage is associated with osteoarthritis. The fate of residual G1 domains of aggrecan is unknown, but inefficient turnover of these domains may impede subsequent repair and retention of newly synthesized aggrecan. Thus, the objective of this study was to determine whether ITEGE- and DIPEN-containing G1 domains, generated in situ, are internalized by articular chondrocytes, and whether these events are dependent on hyaluronan (HA) and its receptor, CD44. ITEGE and DIPEN neoepitopes were detected by immunofluorescence staining of bovine articular cartilage chondrocytes treated with or without interleukin-1α (IL-1α). Addnl., purified ITEGE- or DIPEN-containing G1 domains were aggregated with HA and then added to articular chondrocytes, articular chondrocytes transfected with CD44Δ67, or COS-7 cells transfected with or without full-length CD44. Internalized epitopes were distinguished by their resistance to extensive trypsinization of the cell surface. Both ITEGE and DIPEN were visualized within the extracellular cell-associated matrix of chondrocytes as well as within intracellular vesicles. Following trypsinization, the intracellular accumulation of both epitopes was clearly visible. IL-1 treatment increased extracellular as well as intracellular ITEGE epitope accumulation. Once internalized, the ITEGE neoepitope became localized within the nucleus and displayed little colocalization with HA, DIPEN, or other G1 domain epitopes. The internalization of both ITEGE and DIPEN G1 domains was dependent on the presence of HA and CD44. One important mechanism for the elimination of residual G1 domains following extracellular degradation of aggrecan is CD44-mediated co-internalization with HA.
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:5464 CAPLUS
DOCUMENT NUMBER: 144:290534
TITLE: Differential Regulation of Hyaluronic Acid Synthase Isoforms in Human Saphenous Vein Smooth Muscle Cells
AUTHOR(S): van den Boom, M.; Sarbia, M.; von Wnuck Lipinski, K.; Mann, P.; Meyer-Kirchrath, J.; Rauch, B. H.; Grabitz, K.; Levkau, B.; Schroer, K.; Fischer, J. W.
CORPORATE SOURCE: Molekulare Pharmakologie, Institut fuer Pharmakologie und Klinische Pharmakologie, Heinrich Heine Universitaet, Duesseldorf, Germany
SOURCE: Circulation Research (2006), 98(1), 36-44
CODEN: CIRUAL; ISSN: 0009-7330
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Autologous saphenous vein bypass grafts (SVG) are frequently compromised by neointimal thickening and subsequent atherosclerosis eventually leading

to graft failure. Hyaluronic acid (HA) generated by smooth muscle cells (SMC) is thought to augment the progression of atherosclerosis. The aim of the present study was (1) to investigate HA accumulation in native and explanted arterialized SVG, (2) to identify factors that regulate HA synthase (HAS) expression and HA synthesis, and (3) to study the function of the HAS2 isoform. In native SVG, expression of all 3 HAS isoforms was detected by RT-PCR. Histochem. revealed that native and arterialized human saphenous vein segments were characterized by marked deposition of HA in association with SMC. Interestingly, in contrast to native SVG, cyclooxygenase (COX)-2 expression by SMC and macrophages was detected only in arterialized SVG. In vitro in human venous SMC HAS isoforms were found to be differentially regulated. HAS2, HAS1, and HA synthesis were strongly induced by vasodilatory prostaglandins via Gs-coupled prostaglandin receptors. In addition, thrombin induced HAS2 via activation of PAR1 and interleukin 1β was the only factor that induced HAS3. By small interfering RNA against HAS2, it was shown that HAS2 mediated HA synthesis is critically involved in cell cycle progression through G1/S phase and SMC proliferation. In conclusion, the present study shows that HA-rich extracellular matrix is maintained after arterialization of vein grafts and might contribute to graft failure because of its proproliferative function in venous SMC. Furthermore, COX-2-dependent prostaglandins may play a key role in the regulation of HA synthesis in arterialized vein grafts.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 19 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:248093 CAPLUS

DOCUMENT NUMBER: 142:333981

TITLE: Hyaluronan-CD44 Interaction with IQGAP1 Promotes Cdc42 and ERK Signaling, Leading to Actin Binding, Elk-1/Estrogen Receptor Transcriptional Activation, and Ovarian Cancer Progression

AUTHOR(S): Bourguignon, Lilly Y. W.; Gilad, Eli; Rothman, Kori; Peyrollier, Karine

CORPORATE SOURCE: Department of Medicine, Endocrine Unit, Vererans Affairs Medical Center, University of California, San Francisco, CA, 94121, USA

SOURCE: Journal of Biological Chemistry (2005), 280(12), 11961-11972
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this study, we have examined the interaction of hyaluronan (HA)-CD44 with IQGAP1 (one of the binding partners for the Rho GTPase Cdc42) in SK-OV-3.ipl human ovarian tumor cells. Immunol. and biochem. analyses indicated that IQGAP1 (mol. mass of .apprx.190 kDa) is expressed in SK-OV-3.ipl cells and that IQGAP1 interacts directly with Cdc42 in a GTP-dependent manner. Both IQGAP1 and Cdc42 were phys. linked to CD44 in SK-OV-3.ipl cells following HA stimulation. Furthermore, the HA-CD44-induced Cdc42-IQGAP1 complex regulated cytoskeletal function via a close association with F-actin that led to ovarian tumor cell migration. In addition, the binding of HA to CD44 promoted the association of ERK2 with the IQGAP1 mol., which stimulated both ERK2 phosphorylation and kinase activity. The activated ERK2 then increased the phosphorylation of both Elk-1 and estrogen receptor-α (ERα), resulting in Elk-1- and estrogen-responsive element-mediated transcriptional up-regulation. Down-regulation of IQGAP1 (by treating cells with IQGAP1-specific small interfering RNAs) not only blocked IQGAP1 association with CD44, Cdc42, F-actin, and ERK2 but also abrogated HA-CD44-induced cytoskeletal function, ERK2 signaling (e.g. ERK2 phosphorylation/activity, ERK2-mediated Elk-1/ERα phosphorylation, and Elk-1/ERα-

specific transcriptional activation), and tumor cell migration. Taken together, these findings indicate that HA-CD44 interaction with IQGAP1 serves as a signal integrator by modulating Cdc42 cytoskeletal function, mediating Elk-1-specific transcriptional activation, and coordinating "cross-talk" between a membrane receptor (CD44) and a nuclear hormone receptor (ERα) signaling pathway during ovarian cancer progression.

REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 20 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:544641 CAPLUS

DOCUMENT NUMBER: 141:86284

TITLE: Hyaluronan-CD44 Interaction with Rac1-dependent Protein Kinase N-γ Promotes Phospholipase Cγ1 Activation, Ca2+ Signaling, and Cortactin-Cytoskeleton Function Leading to Keratinocyte Adhesion and Differentiation

AUTHOR(S): Bourguignon, Lilly Y. W.; Singleton, Patrick A.; Diedrich, Falko

CORPORATE SOURCE: Department of Medicine, San Francisco Veterans Affairs Medical Center, Endocrine Unit (111N), University of California, San Francisco, San Francisco, CA, 94121, USA

SOURCE: Journal of Biological Chemistry (2004), 279(28), 29654-29669
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this study we have investigated hyaluronan (HA)-CD44 interaction with protein kinase N-γ (PKNγ), a small GTPase (Rac1)-activated serine/threonine kinase in human keratinocytes. By using a variety of biochem. and mol. biol. techniques, we have determined that CD44 and PKNγ kinase (mol. mass .apprx.120 kDa) are phys. linked in vivo. The binding of HA to keratinocytes promotes PKNγ kinase recruitment into a complex with CD44 and subsequently stimulates Rac1-mediated PKNγ kinase activity. The Rac1-activated PKNγ in turn increases threonine (but not serine) phosphorylation of phospholipase C (PLC) γ1 and up-regulates PLCγ1 activity leading to the onset of intracellular Ca2+ mobilization. HA/CD44-activated Rac1-PKNγ also phosphorylates the cytoskeletal protein, cortactin, at serine/threonine residues. The phosphorylation of cortactin by Rac1-PKNγ attenuates its ability to crosslink filamentous actin in vitro. Further analyses indicate that the N-terminal antiparallel coiled-coil (ACC) domains of PKNγ interact directly with Rac1 in a GTP-dependent manner. The binding of HA to CD44 induces PKNγ association with endogenous Rac1 and its activity in keratinocytes. Transfection of keratinocytes with PKNγ-ACCcDNA reduces HA-mediated recruitment of endogenous Rac1 to PKNγ and blocks PKNγ activity. These findings suggest that the PKNγ-ACC fragment acts as a potent competitive inhibitor of endogenous Rac1 binding to PKNγ in vivo. Most important, the PKNγ-ACC fragment functions as a strong dominant-neg. mutant that effectively inhibits HA/CD44-mediated PKNγ phosphorylation of PLCγ1 and cortactin as well as keratinocyte signaling (e.g. Ca2+ mobilization and cortactin-actin binding) and cellular functioning (e.g. cell-cell adhesion and differentiation). Taken together, these findings strongly suggest that hyaluronan-CD44 interaction with Rac1-PKNγ plays a pivotal role in PLCγ1-regulated Ca2+ signaling and cortactin-cytoskeleton function required for keratinocyte cell-cell adhesion and differentiation.

REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 21 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120889 CAPLUS
DOCUMENT NUMBER: 140:165695
TITLE: Hyaluronic acid derivatives
INVENTOR(S): Manenti, Demetrio; Aita, Gaspare
PATENT ASSIGNEE(S): Jasper Ltd. Liability Co., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013182	A1	20040212	WO 2003-IB2946	20030724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2002MI1666	A1	20040126	IT 2002-MI1666	20020726
AU 2003249491	A1	20040223	AU 2003-249491	20030724
EP 1525224	A1	20050427	EP 2003-766513	20030724
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005239727	A1	20051027	US 2005-522602	20050317

PRIORITY APPLN. INFO.:		
IT 2002-MI1666	A	20020726
IT 2002-MI166	A	20020726
WO 2003-IB2946	W	20030724

AB Derivs. between hyaluronic acid and at least one nitrogenated base, in particular at least one heterocyclic compound derived from purine and/or from pyrimidine and cosmetic and/or pharmaceutical compns. based on said derivs. are disclosed.

L8 ANSWER 22 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:70009 CAPLUS
DOCUMENT NUMBER: 140:141685
TITLE: Detection of hyaluronidase 2 inhibitors for drug screening use and applications to inflammation treatment
INVENTOR(S): Frost, Gregory I.
PATENT ASSIGNEE(S): Deliatroph Pharmaceuticals, Inc., USA
SOURCE: U.S., 20 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6682904	B1	20040127	US 2002-222032	20020815

PRIORITY APPLN. INFO.:		
US 2002-222032		20020815

AB Methods for identifying a hyaluronidase 2 (HYAL2) specific inhibitor, which selectively inhibits HYAL2 activity, but does not substantially affect the activity of non-inflammatory hyaluronidases, are provided. Also provided are HYAL2 specific inhibitors obtained using such a method. In addition, methods for ameliorating an inflammatory disorder or vasculitis

condition by specifically inhibiting HYAL2 is provided.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 23 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:597380 CAPLUS
DOCUMENT NUMBER: 139:196110
TITLE: Hyaluronan-mediated CD44 Interaction with RhoGEF and Rho Kinase Promotes Grb2-associated Binder-1 Phosphorylation and Phosphatidylinositol 3-Kinase Signaling Leading to Cytokine (Macrophage-Colony Stimulating Factor) Production and Breast Tumor Progression
AUTHOR(S): Bourguignon, Lilly Y. W.; Singleton, Patrick A.; Zhu, Hongbo; Diedrich, Falko
CORPORATE SOURCE: Endocrine Unit (111N), Department of Medicine, University of California at San Francisco, San Francisco, CA, 94121, USA
SOURCE: Journal of Biological Chemistry (2003), 278(32), 29420-29434
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In this study we have examined CD44 (a hyaluronan (HA) receptor) interaction with a RhoA-specific guanine nucleotide exchange factor (p115RhoGEF) in human metastatic breast tumor cells (MDA-MB-231 cell line). Immunopptn. and immunoblot analyses indicate that both CD44 and p115RhoGEF are expressed in MDA-MB-231 cells and that these two proteins are phys. associated as a complex in vivo. The binding of HA to MDA-MB-231 cells stimulates p115RhoGEF-mediated RhoA signaling and Rho kinase (ROK) activity, which, in turn, increases serine/threonine phosphorylation of the adaptor protein, Gab-1 (Grb2-associated binder-1). Phosphorylated Gab-1 promotes PI 3-kinase recruitment to CD44v3. Subsequently, PI 3-kinase is activated (in particular, α, β, γ forms but not the δ form of the p110 catalytic subunit), AKT signaling occurs, the cytokine (macrophage-colony stimulating factor (M-CSF)) is produced, and tumor cell-specific phenotypes (e.g. tumor cell growth, survival and invasion) are up-regulated. Our results also demonstrate that HA/CD44-mediated oncogenic events (e.g. AKT activation, M-CSF production and breast tumor cell-specific phenotypes) can be effectively blocked by a PI 3-kinase inhibitor (LY294002). Finally, we have found that overexpression of a dominant-neg. form of ROK (by transfection of MBA-MD-231 cells with the Rho-binding domain cDNA of ROK) not only inhibits HA/CD44-mediated RhoA-ROK activation and Gab-1 phosphorylation but also down-regulates oncogenic signaling events (e.g. Gab-1·PI 3-kinase-CD44v3 association, PI 3-kinase-mediated AKT activation, and M-CSF production) and tumor cell behaviors (e.g. cell growth, survival, and invasion). These findings strongly suggest that CD44 interaction with p115RhoGEF and ROK plays a pivotal role in promoting Gab-1 phosphorylation leading to Gab-1·PI 3-kinase membrane localization, AKT signaling, and cytokine (M-CSF) production during HA-mediated breast cancer progression.
REFERENCE COUNT: 79 THERE ARE 79 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 24 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:43011 CAPLUS
DOCUMENT NUMBER: 138:66664
TITLE: Prevention and treatment of streptococcal and staphylococcal infection using agents binding to hyaluronic acid-binding region of CD44
INVENTOR(S): Wessels, Michael R.; Cywes, Colette
PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S. 6,467,419.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003013643	A1	20030116	US 2001-5200	20011205
WO 2003096877	A2	20031127	WO 2002-US38826	20021203
WO 2003096877	A3	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002367861	A1	20031202	AU 2002-367861	20021203

PRIORITY APPLN. INFO.:		
US 2000-234145P	P	20000921
US 2001-960921	A2	20010925
US 2001-5200	A	20011205
WO 2002-US38826	W	20021203

AB The invention provides new methods for use in prevention and treatment of streptococcal and staphylococcal infection. An agent that binds to a hyaluronic acid-binding region of a CD44 protein of a mucosal membrane is administered in an amount effective to interfere with adhesion of streptococcal or staphylococcal bacteria to the mucosal membrane in the subject, wherein either one or both of the following conditions applies: the treatment is free of Echinacea or the agent is administered in a dose greater than 0.2 mg. Pretreatment of mice with exogenous hyaluronic acid reduced group A streptococcal colonization of the pharynx.

L8 ANSWER 25 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:7600 CAPLUS
DOCUMENT NUMBER: 138:366180
TITLE: Signal transduction pathways in hyaluronan induced proliferation of endothelial cells
AUTHOR(S): Slevin, M.; Kumar, S.; Gaffney, J.
CORPORATE SOURCE: Department of Biological Sciences, Manchester Metropolitan University, Manchester, UK
SOURCE: Hyaluronan, [Proceedings of the International Cellucon Conference], 12th, Wrexham, United Kingdom, 2000 (2002), Meeting Date 2000, Volume 1, 469-472. Editor(s): Kennedy, John F. Woodhead Publishing Ltd.: Cambridge, UK.
CODEN: 69DKVZ; ISBN: 1-85573-570-9
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Knowledge of the signal transduction pathways involved in mediating the effects of oHA on target cells would be useful in defining potential selective targets for inhibitors of endothelial cell (EC) function in relevance to intervention in angiogenesis. We have previously shown that oHA induced mitogenesis involves activation of protein kinase C, MAP kinase and early response genes in bovine aortic EC (BAEC). Here we demonstrate the potential involvement of both G-protein and tyrosine kinase linked elements, suggesting the existence of cross-talk between sep. signal transduction pathways. In the presence of oHA, both PLC γ1 and PLC β1, β2 and β3 were translocated to the plasma membrane. We also found that Gβ sub-units became strongly

associated with PLC γ1, and immuno-neutralizing antibodies loaded into cells using liposome mediated delivery, significantly reduced MAP kinase tyrosine phosphorylation. Furthermore, MAP kinase tyrosine phosphorylation as well as cell proliferation were significantly reduced in the presence of pertussis toxin. Ras was also activated in oHA treated cells, and the potent ras inhibitor Ftase 1 significantly inhibited cell proliferation.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 26 OF 47 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:798512 CAPLUS
DOCUMENT NUMBER: 138:235410
TITLE: Angiogenic Oligosaccharides of Hyaluronan Induce Multiple Signaling Pathways Affecting Vascular Endothelial Cell Mitogenic and Wound Healing Responses
AUTHOR(S): Slevin, Mark; Kumar, Shant; Gaffney, John
CORPORATE SOURCE: Department of Biological Sciences, Manchester Metropolitan University, Manchester, M1 5GD, UK
SOURCE: Journal of Biological Chemistry (2002), 277(43), 41046-41059
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hyaluronan (HA) is a large nonsulfated glycosaminoglycan and an important regulator of angiogenesis, in particular, the growth and migration of vascular endothelial cells. We have identified some of the key intermediates responsible for induction of mitogenesis and wound recovery. Treatment of bovine aortic endothelial cells with oligosaccharides of hyaluronan (o-HA) resulted in rapid tyrosine phosphorylation and plasma membrane translocation of phospholipase Cγ1 (PLCγ1). Cytoplasmic loading with inhibitory antibodies to PLCγ1, Gβ, and Gαi/o/t/z inhibited activation of extracellular-regulated kinase 1/2 (ERK1/2). Treatment with the Gαi/o inhibitor, pertussis toxin, reduced o-HA-induced PLCγ1 tyrosine phosphorylation, protein kinase C (PKC) α and β1/2 membrane translocation, ERK1/2 activation, mitogenesis, and wound recovery, suggesting a mechanism for o-HA-induced angiogenesis through G-proteins, PLCγ1, and PKC. In particular, we demonstrated a possible role for PKCα in mitogenesis and PKCβ1/2 in wound recovery. Using antisense oligonucleotides and the Ras farnesylation inhibitor FTI-277, we showed that o-HA-induced bovine aortic endothelial cell proliferation, wound recovery, and ERK1/2 activation were also partially dependent on Ras activation, and that o-HA-stimulated tyrosine phosphorylation of the adapter protein Shc, as well as its association with Sos1. Binding of Src to Shc was required for its activation and for Ras-dependent activation of ERK1/2, cell proliferation, and wound recovery. Neither Src nor Ras activation was inhibited by pertussis toxin, suggesting that their activation was independent of heterotrimeric G-proteins. However, the specific Src kinase inhibitor PP2 inhibited Gβ subunit co-precipitation with PLCγ1, suggesting a possible role for Src in activation of PLCγ1 and interaction between two distinct o-HA-induced signaling pathways.

REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:550232 CAPLUS
DOCUMENT NUMBER: 122:312293
TITLE: Oxygen-derived free radical (ODFR) action on hyaluronan (HA), on two HA ester derivatives, and on the metabolism of articular chondrocytes
AUTHOR(S): Kvam, B. J.; Fragonas, E.; Degrassi, A.; Kvan, C.; Matulova, M.; Pollesello, P.; Zanetti, F.; Vittur, F.
CORPORATE SOURCE: Poly-bios Res. Cent., Univ. Trieste, Trieste, 34127, Italy
SOURCE: Experimental Cell Research (1995), 218(1), 79-86
CODEN: ECREAL; ISSN: 0014-4827
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Oxygen-derived free radicals (ODFR) appear to be involved in the pathogenesis of arthritic disorders. To gain new insight of their role in the phenomenon and as a basis for a therapeutic approach, the effect of ODFR (produced by the xanthine oxidase-hypoxanthine system) on hyaluronic acid, on two HA ester derivs., and on pig articular chondrocytes was investigated. High Mr HA (1.1+106) and low Mr HA (16+104) were depolymd. by ODFR but the Me and hydrocortisone esters of HA (HYAFF 2P50 and HYC13) turned out to be nearly unaffected. When articular chondrocytes were treated with ODFR, a rapid nucleoside triphosphate (NTP) depletion, a transient appearance of pyrophosphate (PPi), and an increase of phosphomonoester and diphosphodiester concns. have been observed The NTP depletion and the DPDE increase are related to the concentration of free radicals. Glyceraldehyde-3-phosphate accumulate during ODFR treatment suggests that ATP depletion can occur as a consequence of the blockage of glycolysis at the level of glyceraldehyde-3-P dehydrogenase. The hypothesis is presented that PPi can be produced from the pathway of the FAD-NAD (DPDE) biosynthesis and then either hydrolyzed by endogenous pyrophosphatases or precipitated in the form of insol. calcium salts. Long-term treatment (16 h) with ODFR causes a loss of chondrocyte membrane integrity which can be revealed both by an increased free LDH activity and by the characteristic signal of free phospholipids in the 31P-NMR spectra. While high Mr HA shows a significant protective activity for chondrocytes against ODFR action, low Mr HA and ester derivs. do not. It is suggested that the therapeutic activity of HA ester derivs. can be ascribed to their in vivo hydrolysis products.

L13 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 95255525 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7737382
TITLE: Oxygen-derived free radical (ODFR) action on hyaluronan (HA), on two HA ester derivatives, and on the metabolism of articular chondrocytes.
AUTHOR: Kvam B J; Fragonas E; Degrassi A; Kvam C; Matulova M; Pollesello P; Zanetti F; Vittur F
CORPORATE SOURCE: POLY-bios Research Center-Area di Ricerca, Trieste, Italy.
SOURCE: Experimental cell research, (1995 May) Vol. 218, No. 1, pp. 79-86.
Journal code: 0373226. ISSN: 0014-4827.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199506
ENTRY DATE: Entered STN: 15 Jun 1995

Last Updated on STN: 15 Jun 1995
Entered Medline: 5 Jun 1995

AB Oxygen-derived free radicals (ODFR) appear to be involved in the pathogenesis of arthritic disorders. In order to gain new insight on their role in the phenomenon and as a basis for a therapeutic approach, the effect of ODFR (produced by the xanthine oxidase-hypoxantine system) on hyaluronic acid, on two HA ester derivatives, and on pig articular chondrocytes was investigated. High M(r) HA (1.1 x 10(6)) and low M(r) HA (16 x 10(4)) were depolymerized by ODFR but the methyl and hydrocortisone esters of HA (HYAFF 2P50 and HYC13) turned out to be nearly unaffected. When articular chondrocytes were treated with ODFR, a rapid nucleoside triphosphate (NTP) depletion, a transient appearance of pyrophosphate (PPi), and an increase of phosphomonoester and diphosphodiester concentrations have been observed. The NTP depletion and the DPDE increase are related to the concentration of free radicals. Glyceraldehyde-3-phosphate accumulation during ODFR treatment suggests that ATP depletion can occur as a consequence of the blockage of glycolysis at the level of glyceraldehyde-3-P dehydrogenase. The hypothesis is presented that PPi can be produced from the pathway of the FAD-NAD (DPDE) biosynthesis and then either hydrolyzed by endogenous pyrophosphatases or precipitated in the form of insoluble calcium salts. Long-term treatment (16 h) with ODFR causes a loss of chondrocyte membrane integrity which can be revealed both by an increased free LDH activity and by the characteristic signal of free phospholipids in the 31P-NMR spectra. While high M(r) HA shows a significant protective activity for chondrocytes against ODFR action, low M(r) HA and ester derivatives do not. It is suggested that the therapeutic activity of HA ester derivatives can be ascribed to their in vivo hydrolysis products.

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:147238 CAPLUS
DOCUMENT NUMBER: 141:111549
TITLE: Ophthalmic gel formed in situ of cornea due to Poloxamers contained for the proper phase transition temperature
INVENTOR(S): Wei, Gang; Zheng, Junmin
PATENT ASSIGNEE(S): Shenyang Pharmaceutical University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1377706	A	20021106	CN 2002-109503	20020422
PRIORITY APPLN. INFO.:			CN 2002-109503	20020422

AB The ophthalmic gel with phase transition temperature of 25-30°C, which can be administered at room temperature in a liquid form and cured on cornea, is composed of pharmaceutically active agents or their inclusion complexes with cyclodextrins, and poloxamer 407 or 188 and proper amount of high mol. adjuvants. The pharmaceutically active agents include pilocarpine, beta-receptor blockers, beta-lactams, tetracyclines, aminoglycosides, macrolides, chloramphenicol, quinolones, imidazoles, nucleoside, adrenocortical hormone, protein, and polypeptide. The adjuvants for delaying the retention time of medicine on cornea, controlling the release of medicine, and/or improving the rheol. of the gel can be polyvinyl alc., polyvinylpyrrolidone, Me cellulose, hydroxypropyl Me cellulose, hydroxyethyl cellulose, hydroxypropyl cellulose, CM-cellulose, carbomer, Na hyaluronate, xanthan gum, chitosan, Na alginate, and/or phospholipid. For example, a ophthalmic liquid contained ofloxacin 0.3, sodium hyaluronate 0.2, poloxamer407 21%, poloxamer188 10% formed gel after applying to the eye cornea.

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:361017 CAPLUS
DOCUMENT NUMBER: 122:142456
TITLE: Transport performance of nucleosides through nucleic acid bases-conjugated hyaluronan
AUTHOR(S): Chirachanchai, Suwabun; Wada, Takehiko; Inaki, Yoshiaki; Takemoto, Kiichi
CORPORATE SOURCE: Fac. Eng., Osaka Univ., Suita, 565, Japan
SOURCE: Chemistry Letters (1995), (2), 121-2
CODEN: CMLTAG; ISSN: 0366-7022
PUBLISHER: Nippon Kagakkai
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The transport performance of nucleosides through the membranes of hyaluronic acid and deacetylated hyaluronan conjugated with nucleic acid base derivs. has been studied under varied temperature Partition coefficient values of the permeants and permeabilities of the membranes showed the selectivity of nucleosides due to the effect of specific interaction between the permeants and nucleic acid base moiety in the membrane.

L26 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:460095 CAPLUS
DOCUMENT NUMBER: 147:118745
TITLE: Lateral Mobility of Polyelectrolyte Chains in Multilayers
AUTHOR(S): Nazaran, P.; Bosio, V.; Jaeger, W.; Anghel, D. F.; Klitzing, R. v.
CORPORATE SOURCE: Stranski-Laboratorium fuer Physikalische und Theoretische Chemie, Technische Universitaet Berlin, Berlin, D-10623, Germany
SOURCE: Journal of Physical Chemistry B (2007), 111(29), 8572-8581
CODEN: JPCBFK; ISSN: 1520-6106
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The lateral mobility of polyelectrolyte multilayers was studied using the fluorescence recovery after photobleaching (FRAP) technique, with special attention to the effect of relevant parameters during and after preparation Different polyelectrolytes with respect to charge d., stiffness, and hydrophilicity were compared, i.e., diallyldimethylammonium chloride-N-methyl-N-vinylacetamide copolymer, poly(ethyleneimine) (PEI), poly(allylamine hydrochloride), poly(sodium-4-styrene sulfonate), sodium salt of hyaluronic acid, and JR-400 (hydroxyethylcellulose trimethylammonium chloride). The fluorescence probes used include fluorescein isothiocyanate and 5-(4,6-dichlorotriazinyl)aminofluorescein (5-DTAF). The d. of charged sites along the polymer is the most important parameter controlling the formation of polymer complexes. At higher charge d., more complexes are formed, and the diffusion coefficient decreases. The intrinsic backbone stiffness reduces the interpenetration of polyelectrolyte layers and the formation of complexes promoting the lateral mobility. The lateral mobility increases with increasing ionic strength and with decreasing hydration shell of the added anion in the polyelectrolyte solution The effect of heating or annealing in electrolyte solution after preparation was also studied along with the embedding of the probing layer at controlled distances to the multilayer surface.
REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:326305 CAPLUS
DOCUMENT NUMBER: 145:217613
TITLE: Change in the morphology of hydroxyapatite nanocrystals in the presence of bioaffinitive polymeric species under the application of electrical field
AUTHOR(S): Tanaka, Saki; Shiba, Naoko; Senna, Mamoru
CORPORATE SOURCE: Faculty of Science and Technology, Keio University, 3-14-1 Hiyoshi, Yokohama, 223-8522, Japan
SOURCE: Science and Technology of Advanced Materials (2006), 7(2), 226-228
CODEN: STAMCV; ISSN: 1468-6996
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB On application of the external elec. field during the precipitation of hydroxyapatite (HAP) nanoparticles in the presence of bioaffinitive polymeric species, individual crystallites as well as their coherent agglomerates increase their anisotropy with the increasing aspect ratio of the crystallites, Lc/La or of aggregated particles, dc/da. The tendency was quite similar when the authors change the polymeric species between

gelatin (GLT) and sodium salt of hyaluronic acid (HYA), although the extent of change is larger for GLT as compared to HYA, presumably due to stronger polymer-HAP interaction in case of HYA. External elec. field often causes severe agglomeration to fairly isotropic particles with substantial loss of the HAP crystallinity. This might be attributed to the strong ionic interaction between and COO- group of HYA, which is not the case with GLT.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:188066 CAPLUS

TITLE: Rheology of sodium hyaluronate solutions under physiological conditions of pH and varying ionic strength

AUTHOR(S): Ohene, Frank, Y.; Reed, Lagaryion, S.; Wilson, Patrina, G.

CORPORATE SOURCE: Chemistry Department, Grambling State University, Grambling, LA, 71245, USA

SOURCE: Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United States, April 7-11, 2002 (2002), COLL-148. American Chemical Society: Washington, D. C.
CODEN: 69CKQP

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB Quant. study of the viscoelastic properties of sodium hyaluronate, the sodium salt of hyaluronic acid, (HA) solns. subjected to varying temperature, applied stress and ionic strength at physiol. pH conditions have been made. The rheol. properties show a sharp increase in the zero shear viscosity as the concentration of the sodium hyaluronate nears 5 mg/mL. A steady shear expts. indicate that the solns. of the hyaluronic acid solns. exhibit non-Newtonian flow behavior with an onset of shear thinning behavior at a shear rate of 5 s-1. The storage and loss moduli obtained from oscillatory measurements reveal the existence of entanglement in the high concentration regimes. Data Analyses show that in the high concentration regimes of HA, ionic strength has minimal effect on the mechanism of intermol. interactions, and that the ionic strength plays a significant role only in the low concentration regimes of the sodium hyaluronate.

L40 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:708939 CAPLUS
TITLE: Interaction of nucleic acids and glycans
AUTHOR(S): Zimnitsky, A. N.; Bashkatov, S. A.; Urazbayev, V. N.
CORPORATE SOURCE: "Plazan" NPO, Moscow, 125040, Russia
SOURCE: Biofizika (2007), 52(3), 443-451
CODEN: BIOFAI; ISSN: 0006-3029
PUBLISHER: Izdatel'stvo Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Spectrophotometric anal. and dot-hybridization have shown that amylose forms complexes with polypyrimidines (poly dC), while polyuronides form complexes with polypurines (poly dA). In addition, the formation of complexes genomic thymus DNA-hyaluronic acid has been observed A certain role in the mechanism of NA-polysaccharide interactions can be played by the links between purines and the carboxylic group of hexuronic acid residue, as well as between pyrimidines and the hydroxymethyl group of hexose residue. The quantum-chemical calcns. showed that, between nitric bases of DNA and the carboxyl groups of hexuronic acids or the hydroxymethyl group of hexose, hydrogen bonds can be formed the energy of which is comparable with that in the complementary AT and CG pairs. The strength of these bonds is unequal: carboxyl groups form stronger hydrogen bonds with purines and weaker bonds with pyrimidines. The hydroxymethyl group, on the contrary, forms stronger hydrogen bonds with pyrimidines and weaker bonds with purines. The quantum-chemical modeling shows that, in the complementary pairs purin-uronic acid and pyrimidine-hexose, hydrogen bonds are produced that form a binary chain nucleic acid-polysaccharide. The data obtained suggest the existence of template synthesis of GAG polysaccharide fragments with the participation of NA.

L40 ANSWER 2 OF 2 MEDLINE on STN
ACCESSION NUMBER: 2007414977 MEDLINE
DOCUMENT NUMBER: PubMed ID: 17633532
TITLE: Interaction of nucleic acids and glycans.
AUTHOR: Zimnitskii A N; Bashkatov S A; Urazbaev V N
SOURCE: Biofizika, (2007 May-Jun) Vol. 52, No. 3, pp. 443-51.
Journal code: 0372666. ISSN: 0006-3029.
PUB. COUNTRY: Russia (Federation)
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200708
ENTRY DATE: Entered STN: 19 Jul 2007
Last Updated on STN: 18 Aug 2007
Entered Medline: 17 Aug 2007

AB Spectrophotometric analysis and dot-hybridization have shown that amylose forms complexes with polypyrimidines (poly dC), while polyuronides form complexes with polypurines (poly dA). In addition, the formation of complexes genomic thymus DNA-hyaluronic acid has been observed. A certain role in the mechanism of NA-polysaccharide interactions can be played by the links between purines and the carboxylic group of hexuronic acid residue, as well as between pyrimidines and the hydroxymethyl group of hexose residue. The quantum-chemical calculations showed that, between nitric bases of DNA and the carboxyl groups of hexuronic acids or the hydroxymethyl group of hexose, hydrogen bonds can be formed the energy of which is comparable with that in the complementary AT and CG pairs. The strength of these bonds is unequal: carboxyl groups form stronger hydrogen bonds with purines and weaker bonds with pyrimidines. The hydroxymethyl group, on the contrary, forms stronger hydrogen bonds with

pyrimidines and weaker bonds with purines. The quantum-chemical modeling shows that, in the complementary pairs purin-uronic acid and pyrimidine-hexose, hydrogen bonds are produced that form a binary chain nucleic acid-polysaccharide. The data obtained suggest the existence of template synthesis of GAG polysaccharide fragments with the participation of NA.

L42 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120889 CAPLUS
DOCUMENT NUMBER: 140:165695
TITLE: Hyaluronic acid derivatives
INVENTOR(S): Manenti, Demetrio; Aita, Gaspare
PATENT ASSIGNEE(S): Jasper Ltd. Liability Co., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013182	A1	20040212	WO 2003-IB2946	20030724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2002MI1666	A1	20040126	IT 2002-MI1666	20020726
AU 2003249491	A1	20040223	AU 2003-249491	20030724
EP 1525224	A1	20050427	EP 2003-766513	20030724
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005239727	A1	20051027	US 2005-522602	20050317

PRIORITY APPLN. INFO.:

IT 2002-MI1666	A	20020726
IT 2002-MI166	A	20020726
WO 2003-IB2946	W	20030724

AB Derivs. between hyaluronic acid and at least one nitrogenated base, in particular at least one heterocyclic compound derived from purine and/or from pyrimidine and cosmetic and/or pharmaceutical compns. based on said derivs. are disclosed.

L42 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:907314 CAPLUS
DOCUMENT NUMBER: 145:363391
TITLE: Method for preparation of steroid contained anti-carcinogen slow release microsphere and its application
INVENTOR(S): Sun, Juan; Sun, Zhonghou; Kong, Qingxin; Tian, Shaolan
PATENT ASSIGNEE(S): Jinan Kangquan Pharmaceutical Science and Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 29pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1824313	A	20060830	CN 2005-10200849	20051220
PRIORITY APPLN. INFO.:			CN 2005-10200849	20051220

AB This invention relates to steroids contained anticarcinogen slow release microsphere, which comprises effective anticancer component and medicinal adjuvant. The effective anticancer components comprise (1) steroids anticarcinogen of triptorelin, goserelin, Leuprorelin, Medroxyprogesterone, Clomiphene, toremifene, letrozole, Arimidex or Aromasin; or (2) steroid anticarcinogens and/or steroids anticarcinogen potentiation agents from antimetabolite anticarcinogen and/or topo-inhibitor. The medicinal adjuvant comprises polylactic acid, copolymer of polyglycollic acid and hydroxyacetic acid, ethylene-vinyl acetate copolymer, polifeprosan, xylitol, oligosaccharide, chitin, potassium salt, sodium salt, hyaluronic acid, chondroitin sulfate, collagen, gelatin or albumin. The steroid anticarcinogens comprises Arimidex, idoxifene, Miproxifene, Tamoxifen, raloxifene, Rubitecan, Flutamide, bicalutamide, Aminoglutethimide, calusterone, Triptorelin, goserelin, Leuprorelin, medroxyprogesterone, Toremifene,, Exemestane. The topo-inhibitor comprises Lurtotecan, Irinotecan, Etoposide, camptothecin, 9-nitro camptothecin, Topotecan, 7-ethyl-10-hydroxy-camptothecin, 7-ethyl-10-[4-(1-piperidine)-1-piperidine]carbonyl camptothecin, 10-hydroxy camptothecin, (+)-1,2-bis(3,5-dioxopiperazine)propane, m-2,3-bis(3,5-dioxopiperazine-1-yl)butane, bis(dioxopiperazine), N-[2-(dimethylamino)ethyl]pyridine-4-carboxyl amide. The antimetabolite anticarcinogen comprises 6-mercapto purine, 5-fluorouracil, Methotrexate, Pentrex, Raltitrexed, Carmofur, Tegafur, Galocitabine, Ibacitabine, Enocitabine, Decitabine, Capecitabine, Gemcitabine, Flurocitabine, Cladribine and Pentoside. The steroids contained anticarcinogen slow release microsphere is used to prepare anticancer slow release implant, comprising effective anticancer components mentioned above, slow release adjuvant and solvent (comprising lacquer solvent of carboxy Me cellulose sodium, (iodo)glycerin, dimethicone, propylene glycol, Carbomer, mannitol, sorbitol, surfactant, tween 20, tween 40 and tween 80). The steroid contained anticarcinogen slow release microsphere is used to prepare anticancer slow release injection, comprising effective anticancer components mentioned above, slow release adjuvant and solvent (comprising lacquer solvent of carboxy Me cellulose sodium, (iodo)glycerin, dimethicone, propylene glycol, Carbomer, mannitol, sorbitol, Surfactin, tween 20, tween 40 and tween 80).

L42 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120889 CAPLUS
DOCUMENT NUMBER: 140:165695
TITLE: Hyaluronic acid derivatives
INVENTOR(S): Manenti, Demetrio; Aita, Gaspare

PATENT ASSIGNEE(S): Jasper Ltd. Liability Co., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013182	A1	20040212	WO 2003-IB2946	20030724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2002MI1666	A1	20040126	IT 2002-MI1666	20020726
AU 2003249491	A1	20040223	AU 2003-249491	20030724
EP 1525224	A1	20050427	EP 2003-766513	20030724
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005239727	A1	20051027	US 2005-522602	20050317

PRIORITY APPLN. INFO.:		
IT 2002-MI1666	A	20020726
IT 2002-MI166	A	20020726
WO 2003-IB2946	W	20030724

AB Derivs. between hyaluronic acid and at least one nitrogenated base, in particular at least one heterocyclic compound derived from purine and/or from pyrimidine and cosmetic and/or pharmaceutical compns. based on said derivs. are disclosed.

L43 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:887045 CAPLUS
DOCUMENT NUMBER: 143:318949
TITLE: Triamcinolone does not alter glial cell activation in the experimentally detached rabbit retina
AUTHOR(S): Uckermann, Ortrud; Pannicke, Thomas; Wiedemann, Peter; Reichenbach, Andreas; Bringmann, Andreas; Uhlmann, Susann
CORPORATE SOURCE: Paul Flechsig Institute of Brain Research, University of Leipzig, Leipzig, Germany
SOURCE: Journal of Ocular Pharmacology and Therapeutics (2005), 21(4), 266-274
CODEN: JOPTFU; ISSN: 1080-7683
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Retinal detachment induces neural and photoreceptor cell degeneration and fast activation of micro- (immune) and macroglial cells. Hypoxia caused by increased distance between the choriocapillaris and the neural retina, and retinal edema during detachment, are factors causing gliotic responses and cell degeneration. Triamcinolone may inhibit some cellular responses that accompany hypoxia. Therefore, we investigated whether triamcinolone acetonide may be effective to reduce the gliotic alterations in the detached retina. Local retinal detachment in rabbit eyes was created by subretinal injection of sodium hyaluronate, and triamcinolone acetonide (8 mg) was applied intravitreally. Whole-cell patch-clamp records from Muller cells and Ca2+ imaging from retinal wholemounts were carried out. Microglial/immune cells in the nerve-fiber layer of retinal wholemounts were labeled with Griffonia simplicifolia agglutinin (GSA) isolectin. Addnl., two morphol. parameters which characterize microglial activation/immune cell infiltration were estimated: the cross-sectional area of the somata of the cells in the nerve-fiber layer and the number of cell processes which evolve from the soma. Three days after detachment, gliotic alterations were apparent in Muller cells isolated from both detached and nondetached retinal areas, as indicated by the cellular hypertrophy, by the downregulation of the plasma membrane K+ conductance, and by the upregulation of intracellular Ca2+ responsiveness to stimulation of purinergic P2Y receptors. Intravitreal triamcinolone did not alter these gliotic alterations of Muller cells. Furthermore, triamcinolone could not inhibit the immune cell activation present in detached and attached retinal areas. However, intravitreal triamcinolone led to a strong decrease in the process number of GSA lectin-pos. cells from detached retinas. The results suggest that triamcinolone is ineffective to inhibit gliotic responses in the detached retina. However, the immune cell activation after detachment was partially influenced by triamcinolone.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L43 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120889 CAPLUS
DOCUMENT NUMBER: 140:165695
TITLE: Hyaluronic acid derivatives
INVENTOR(S): Manenti, Demetrio; Aita, Gaspare
PATENT ASSIGNEE(S): Jasper Ltd. Liability Co., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

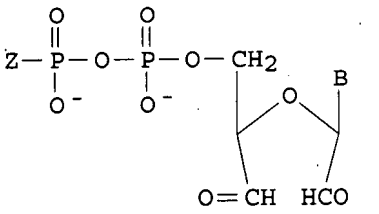
WO 2004013182		A1	20040212	WO 2003-IB2946	20030724
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2002MI1666		A1	20040126	IT 2002-MI1666	20020726
AU 2003249491		A1	20040223	AU 2003-249491	20030724
EP 1525224		A1	20050427	EP 2003-766513	20030724
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005239727		A1	20051027	US 2005-522602	20050317
PRIORITY APPLN. INFO.:				IT 2002-MI1666 A	20020726
				IT 2002-MI166 A	20020726
				WO 2003-IB2946 W	20030724

AB Derivs. between hyaluronic acid and at least one nitrogenated base, in particular at least one heterocyclic compound derived from purine and/or from pyrimidine and cosmetic and/or pharmaceutical compns. based on said derivs. are disclosed.

L43 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:440267 CAPLUS
DOCUMENT NUMBER: 107:40267
TITLE: Oxidized nucleotide-saccharides
INVENTOR(S): Prehm, Peter
PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Fed. Rep. Ger.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3428976	A1	19860213	DE 1984-3428976	19840806
PRIORITY APPLN. INFO.:			DE 1984-3428976	19840806
OTHER SOURCE(S):	MARPAT 107:40267			

GI



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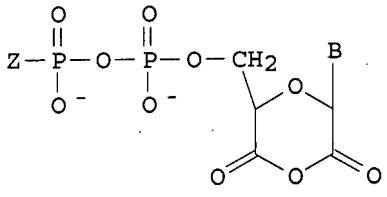

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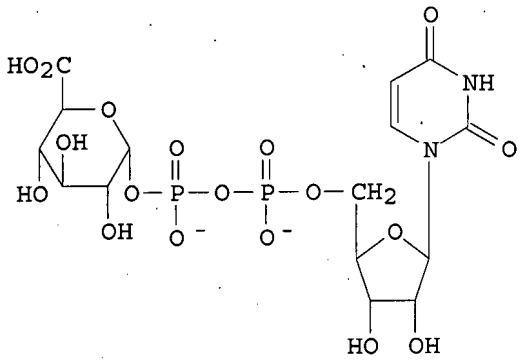


III

AB The title compds. [I or II; Z = residue of a saccharide selected from glucose, N-acetylglucosamine, xylose, and glucuronic acid; B = purine base or pyrimidine base], useful as inhibitors for glycosyltransferase and hyaluronate synthetase, are prepared Uridine-5'-diphosphate glucuronate (III) in a Na phosphate buffer at pH 6.8 was treated with NaIO4 for 1 h at 0° to give I or II [Z = glucuronic acid residue, B = 3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl]. In an in vitro study, I [Z = N-acetylglucosamine residue, B = 3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl], inhibited by 75% hyaluronate formation.

L43 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:85837 CAPLUS
DOCUMENT NUMBER: 64:85837
ORIGINAL REFERENCE NO.: 64:16192g-h
TITLE: Binding of cationic dyes to nucleic acids and other biological polyanions
AUTHOR(S): Scott, J. E.; Willet, Irene H.
CORPORATE SOURCE: Canadian Red Cross Mem. Hosp., Maidenhead, UK
SOURCE: Nature (London, United Kingdom) (1966), 209(5027), 985-7
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The binding of various dyes to polyanions (e.g., hyaluronate, alginate, chondroitin sulfate, heparin sulfate, onuphic acid, RNA, DNA, polyadenylic acid, and polyuridylic acid) was studied by spotting solns. of the polyanions on filter paper, drying, and immersing in solns. containing 0.01% dye (e.g. Alcian Blue, Thioflavine T, Azur A, 9-aminoacridine, Methyl Green, Acridine Orange, or pyronine) in varying concns. of NaCl or AlCl3. Unless the polyanion contained aromatic groups (e.g., purine or pyrimidine rings) binding was prevented by very low salt concns., indicating that there were probably forces other than coulombic involved in the binding of dyes to RNA and DNA.

L43 ANSWER 5 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2006231630 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16639028
TITLE: Glial cell reactivity in a porcine model of retinal detachment.

AUTHOR: Iandiev Ianors; Uckermann Ortrud; Pannicke Thomas; Wurm Antje; Tenckhoff Solveig; Pietsch Uta-Carolin; Reichenbach Andreas; Wiedemann Peter; Bringmann Andreas; Uhlmann Susann
CORPORATE SOURCE: Paul Flechsig Institute of Brain Research, Leipzig, Germany.
SOURCE: Investigative ophthalmology & visual science, (2006 May) Vol. 47, No. 5, pp. 2161-71.
Journal code: 7703701. ISSN: 0146-0404.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200606
ENTRY DATE: Entered STN: 27 Apr 2006
Last Updated on STN: 7 Jun 2006
Entered Medline: 6 Jun 2006

AB PURPOSE: Detachment of the neural retina from the pigment epithelium causes, in addition to photoreceptor deconstruction and neuronal cell remodeling, an activation of glial cells. It has been suggested that gliosis contributes to the impaired recovery of vision after reattachment surgery that may involve both formerly detached and nondetached retinal areas. Muller and microglial cell reactivity was monitored in a porcine model of rhegmatogenous retinal detachment, to determine whether gliosis is present in detached and nondetached retinal areas. METHODS: Local detachment was created in the eyes of adult pigs by subretinal application of hyaluronate. Retinal slices were immunostained against glial intermediate filaments and K+ and water channel proteins (aquaporin-4, Kir4.1, Kir2.1), and P2Y receptor proteins. In retinal wholemounts, adenosine 5'-triphosphate (ATP)-induced intracellular Ca2+ responses of Muller cells were recorded, and microglial and immune cells were labeled with Griffonia simplicifolia agglutinin isolectin I-B4. K+ currents were recorded from isolated Muller cells. RESULTS: At 3 and 7 days after surgery, Muller cells in detached retinas showed a pronounced gliosis, as revealed by the increased expression of the intermediate filaments glial fibrillary acidic protein and vimentin, by the decrease of Kir4.1 immunoreactivity and of the whole-cell K+ currents, and by the increased incidence of cells that showed Ca2+ responses on stimulation of purinergic (P)2 receptors by ATP. By contrast, the immunohistochemical expression of Kir2.1 and aquaporin-4 were not altered after detachment. The increase in the expression of intermediate filaments, the decrease of the whole-cell K+ currents and of the Kir4.1 immunolabeling, and the increase in the Ca2+ responsiveness of Muller cells were also observed in attached retinal areas surrounding the focal detachment. The density of microglial-immune cells at the inner surface of the retinas increased in both detached and nondetached retinal areas. The immunoreactivities for P2Y1 and P2Y2 receptor proteins apparently increased only in detached areas. CONCLUSIONS: Reactive responses of Muller and microglial cells are not restricted to detached retinal areas but are also observed in nondetached regions of the porcine retina. The gliosis in the nondetached retina may reflect, or may contribute to, neuronal degeneration that may explain the impaired recovery of vision observed in human subjects after retinal reattachment surgery.

L43 ANSWER 6 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2005451302 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16117690
TITLE: Triamcinolone does not alter glial cell activation in the experimentally detached rabbit retina.
AUTHOR: Uckermann Ortrud; Pannicke Thomas; Wiedemann Peter; Reichenbach Andreas; Bringmann Andreas; Uhlmann Susann
CORPORATE SOURCE: Paul Flechsig Institute of Brain Research, University of Leipzig, Leipzig, Germany.
SOURCE: Journal of ocular pharmacology and therapeutics : the

official journal of the Association for Ocular Pharmacology and Therapeutics, (2005 Aug) Vol. 21, No. 4, pp. 266-74.
Journal code: 9511091. ISSN: 1080-7683.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200509
ENTRY DATE: Entered STN: 25 Aug 2005
Last Updated on STN: 24 Sep 2005
Entered Medline: 23 Sep 2005

AB AIMS: Retinal detachment induces neural and photoreceptor cell degeneration and fast activation of micro- (immune) and macroglial cells. Hypoxia caused by increased distance between the choriocapillaris and the neural retina, and retinal oedema during detachment, are factors causing gliotic responses and cell degeneration. Triamcinolone may inhibit some cellular responses that accompany hypoxia. Therefore, we investigated whether triamcinolone acetonide may be effective to reduce the gliotic alterations in the detached retina. METHODS: Local retinal detachment in rabbit eyes was created by subretinal injection of sodium hyaluronate, and triamcinolone acetonide (8 mg) was applied intravitreally. Wholecell patch-clamp records from Muller cells and Ca2+ imaging from retinal wholemounts were carried out. Microglial/immune cells in the nerve-fiber layer of retinal wholemounts were labeled with Griffonia simplicifolia agglutinin (GSA) isolectin. Additionally, two morphological parameters which characterize microglial activation/immune cell infiltration were estimated: the cross-sectional area of the somata of the cells in the nerve-fiber layer and the number of cell processes which evolve from the soma. RESULTS: Three days after detachment, gliotic alterations were apparent in Muller cells isolated from both detached and nondetached retinal areas, as indicated by the cellular hypertrophy, by the downregulation of the plasma membrane K+ conductance, and by the upregulation of intracellular Ca2+ responsiveness to stimulation of purinergic P2Y receptors. Intravitreal triamcinolone did not alter these gliotic alterations of Muller cells. Furthermore, triamcinolone could not inhibit the immune cell activation present in detached and attached retinal areas. However, intravitreal triamcinolone led to a strong decrease in the process number of GSA lectin-positive cells from detached retinas. CONCLUSIONS: The results suggest that triamcinolone is ineffective to inhibit gliotic responses in the detached retina. However, the immune cell activation after detachment was partially influenced by triamcinolone.

L43 ANSWER 7 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2003400851 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12939335
TITLE: Early glial cell reactivity in experimental retinal detachment: effect of suramin.
AUTHOR: Uhlmann Susann; Bringmann Andreas; Uckermann Ortrud; Pannicke Thomas; Weick Michael; Ulbricht Elke; Goczalik Iwona; Reichenbach Andreas; Wiedemann Peter; Francke Mike
CORPORATE SOURCE: Department of Ophthalmology, Eye Clinic, University of Leipzig, Leipzig, Germany.
SOURCE: Investigative ophthalmology & visual science, (2003 Sep) Vol. 44, No. 9, pp. 4114-22.
Journal code: 7703701. ISSN: 0146-0404.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200309
ENTRY DATE: Entered STN: 27 Aug 2003

Last Updated on STN: 17 Sep 2003
Entered Medline: 16 Sep 2003

AB PURPOSE: In a rabbit model of retinal detachment, early Muller glial cell reactivity was monitored-specifically, changes in membrane features-to determine whether these changes involve an upregulation of purinergic P2 receptor-mediated responses and whether all or some of these alterations could be blocked by suramin or pyridoxal phosphate 6-azophenyl-2',4'-disulfonic acid (PPADS). In addition, the immune cell reactivity (microglial cells and blood-derived immune cells) was monitored. METHODS: A local retinal detachment was induced by subretinal injection of a sodium hyaluronate solution. Three, 24, 48, and 72 hours after surgery, Muller cells were acutely isolated, and patch-clamp records of the whole-cell potassium currents were made. The presence of P2 receptor-mediated responses was determined by measuring extracellular adenosine triphosphate (ATP)-induced membrane current increases, and by recording of ATP-induced calcium responses at the vitreal surface of retinal wholemounts. The density of isolectin B(4)-labeled immune cells was determined in the nerve fiber layer of retinal wholemounts. RESULTS: Within 24 hours of detachment, Muller cell reactivity was evident. The cells downregulated the density of their inwardly rectifying potassium currents to 60% and 47% of the control value at 48 hours and 72 hours of detachment, respectively. This downregulation was accompanied by an enhanced incidence of cells which showed calcium and current responses after ATP application (control: 14%; 24 hours of detachment: 42%; 72 hours of detachment: 80%). Muller cell hypertrophy was apparent at 48 and 72 hours of detachment. Application of suramin during surgery inhibited the downregulation of potassium currents, but not the elevated responsiveness to extracellular ATP; PPADS had no effect. Suramin also inhibited the inflammatory response that was induced by the surgical procedure and that was apparent by the increased number of immune cells. CONCLUSIONS: Reactive responses of Muller cells occur within 24 hours of detachment. Suramin inhibits several (but not all) reactive glial alterations and therefore may represent one candidate for further investigations in the search for drugs that limit detrimental effects of immune cell activation and Muller cell gliosis during retinal detachment.

L43 ANSWER 8 OF 8 MEDLINE on STN
ACCESSION NUMBER: 95169719 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7865529
TITLE: Monitoring of acute lung rejection and infection by bronchoalveolar lavage and plasma levels of hyaluronic acid in clinical lung transplantation.
AUTHOR: Rao P N; Zeevi A; Snyder J; Spichty K; Habrat T; Warty V; Dauber J; Paradis I; Duncan S; Pham S; +
CORPORATE SOURCE: Department of Surgery and Pathology, University of Pittsburgh, Pa.
SOURCE: The Journal of heart and lung transplantation : the official publication of the International Society for Heart Transplantation, (1994 Nov-Dec) Vol. 13, No. 6, pp. 958-62. Journal code: 9102703. ISSN: 1053-2498.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199503
ENTRY DATE: Entered STN: 7 Apr 1995
Last Updated on STN: 7 Apr 1995
Entered Medline: 28 Mar 1995

AB Local immunological injury caused by acute lung rejection leads to fibroblast proliferation. Hyaluronate is a product of activated fibroblasts and possibly an indicator of fibroblast proliferation. One hundred thirty-six bronchoalveolar lavage and plasma hyaluronate assays were performed in 57 lung transplant recipients. Pulmonary endothelial cell function was assessed by measuring bronchoalveolar lavage

levels of purine nucleoside phosphorylase. Presence of acute cellular rejection was monitored by transbronchial biopsy histologic evaluation and was classified as minimal to mild (acute rejection I, II) and moderate to severe (acute rejection III, IV). Infection was confirmed by bronchoalveolar lavage culture and antibiotic sensitivity. Bronchoalveolar lavage hyaluronate levels in clinically stable recipients were 33.5 +/- 4.69 micrograms/L and were significantly higher than with clinically stable recipients ($p = 0.0001$), infection ($p = 0.008$), or mild rejection ($p = 0.001$). Levels were highest in recipients with diffuse alveolar damage (392.4 +/- 60.6 micrograms/L). Diffuse alveolar damage also resulted in significant elevations of plasma HA as compared with stable recipients ($p = 0.001$) and mild rejection. We conclude that clinically significant injury to the allograft from rejection or diffuse alveolar damage can be assessed by bronchoalveolar lavage hyaluronate assays and suggest that the source of hyaluronate in these instances are activated fibroblasts.

L44 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:120889 CAPLUS
DOCUMENT NUMBER: 140:165695
TITLE: Hyaluronic acid derivatives
INVENTOR(S): Manenti, Demetrio; Aita, Gaspare
PATENT ASSIGNEE(S): Jasper Ltd. Liability Co., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013182	A1	20040212	WO 2003-IB2946	20030724
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2002MI1666	A1	20040126	IT 2002-MI1666	20020726
AU 2003249491	A1	20040223	AU 2003-249491	20030724
EP 1525224	A1	20050427	EP 2003-766513	20030724
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005239727	A1	20051027	US 2005-522602	20050317

PRIORITY APPLN. INFO.:		
IT 2002-MI1666	A	20020726
IT 2002-MI166	A	20020726
WO 2003-IB2946	W	20030724

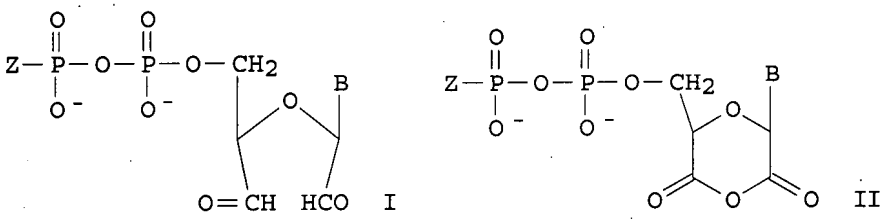
AB Derivs. between hyaluronic acid and at least one nitrogenated base, in particular at least one heterocyclic compound derived from purine and/or from pyrimidine and cosmetic and/or pharmaceutical compns. based on said derivs. are disclosed.

L44 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:440267 CAPLUS
DOCUMENT NUMBER: 107:40267
TITLE: Oxidized nucleotide-saccharides
INVENTOR(S): Prehm, Peter
PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Fed. Rep. Ger.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3428976	A1	19860213	DE 1984-3428976	19840806

PRIORITY APPLN. INFO.:		
DE 1984-3428976		19840806

OTHER SOURCE(S): MARPAT 107:40267
GI



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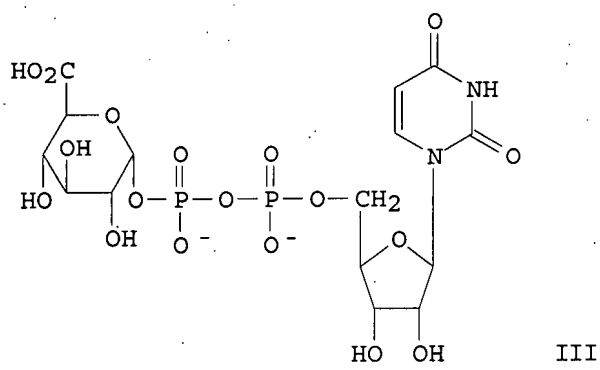
II



III

AB The title compds. [I or II; Z = residue of a saccharide selected from glucose, N-acetylglucosamine, xylose, and glucuronic acid; B = purine base or pyrimidine base], useful as inhibitors for glycosyltransferase and hyaluronate synthetase, are prepared Uridine-5'-diphosphate glucuronate (III) in a Na phosphate buffer at pH 6.8 was treated with NaIO4 for 1 h at 0° to give I or II [Z = glucuronic acid residue, B = 3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl]. In an in vitro study, I [Z = N-acetylglucosamine residue, B = 3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl], inhibited by 75% hyaluronate formation.

L44 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1966:85837 CAPLUS
DOCUMENT NUMBER: 64:85837
ORIGINAL REFERENCE NO.: 64:16192g-h
TITLE: Binding of cationic dyes to nucleic acids and other biological polyanions
AUTHOR(S): Scott, J. E.; Willet, Irene H.
CORPORATE SOURCE: Canadian Red Cross Mem. Hosp., Maidenhead, UK
SOURCE: Nature (London, United Kingdom) (1966), 209(5027), 985-7
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The binding of various dyes to polyanions (e.g., hyaluronate, alginate, chondroitin sulfate, heparin sulfate, onuphic acid, RNA, DNA, polyadenylic acid, and polyuridylic acid) was studied by spotting solns. of the polyanions on filter paper, drying, and immersing in solns. containing 0.01% dye (e.g. Alcian Blue, Thioflavine T, Azur A, 9-aminoacridine, Methyl Green, Acridine Orange, or pyronine) in varying concns. of NaCl or AlCl3. Unless the polyanion contained aromatic groups (e.g., purine or pyrimidine rings) binding was prevented by very low salt concns., indicating that there were probably forces other than coulombic involved in the binding of dyes to RNA and DNA.

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     (FILE 'HOME' ENTERED AT 10:36:04 ON 24 AUG 2007)

     FILE 'REGISTRY' ENTERED AT 10:36:18 ON 24 AUG 2007
               E ADENINE HYALURONATE/CN
               E ADENINE HYALURONIC ACID/CN
               E NUCLEOSIDE HYALURONATE/CN
               E GUANINE HYALURONATE/CN
               E PURINE HYALURONATE/CN
               E PYRIMIDINE HYALURONATE/CN
               E ADENOSINE HYALURONATE/CN
               E THYMIDINE HYALURONATE/CN
               E THYMINE HYALURONATE/CN
               E URACIL HYALURONATE/CN
               E URADINE HYALURONATE/CN
               E URIDINE HYALURONIC ACID/CN
               E URIDINE HYALURONANTE/CN
               E NUCLOESIDE HYALURONIC ACID/CN
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     FILE 'CAPLUS, MEDLINE' ENTERED AT 10:44:04 ON 24 AUG 2007
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L3             0 S L2 AND SALT?
L4             0 S HYALURON? SALT? OF NUCLEOSIDE?
L5             2 S HYALURON? OF NUCLEOSIDE?
L6             0 S HYALURON? OF GUANINE?
L7             0 S HYALURON? SALT (P) GUANINE?
L8            47 S HYALURON? (P) GUANINE?
L9            40 S HYALURON? (P) ADENINE
L10            0 S HYALURONIC ACID? (P) ADENINE (P) COMPLEX?
L11            2 S HYALURONIC ACID? (P) GUANINE (P) COMPLEX?
L12            0 S HYALURONIC ACID? (P) NUCLEOSIDE? (P) COMPLEX?
L13            2 S HYALURONIC ACID? (P) NUCLEOSIDE? (P) SALT?
L14            0 S HYALURONATE? (P) NUCLEOSIDE? (P) SALT?
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L16            0 S HYALURONATE? (P) NUCLEOSIDE? (P) CONJUGATE?
L17            1 S HYALURONIC ACID? (P) NUCLEOSIDE? (P) CONJUGATE?
L18            0 S GUANINE HYALURONAT?
L19            0 S ADENINE HYALURONAT?
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L21            0 S ADENINE HYALURON?
L22            0 S URIDINE? HYALURON?
L23            0 S URACIL? HYALURON?
L24            1 S THYMINE? HYALURON?
L25            0 S URIDINE? HYALURON?
L26            3 S SALT? OF HYALURONIC ACID? (P) IONIC
L27            0 S SALT? OF HYALURONIC ACID? (P) GUANINE
L28            0 S SALT? OF HYALURONIC ACID? (P) ADENINE
L29            0 S SALT? OF HYALURONIC ACID? (P) URIDINE
L30            0 S SALT? OF HYALURONIC ACID? (P) URACIL
L31            0 S SALT? OF HYALURONIC ACID? (P) ADENOSINE
L32            0 S SALT? OF HYALURONIC ACID? (P) THYMINE
L33            0 S HYALURONIC ACID? SALT? (P) GUANINE
L34            0 S HYALURONIC ACID? SALT? (P) ADENINE
L35            0 S HYALURONIC ACID? SALT? (P) NUCLEOSIDE?
L36            0 S HYALURONIC ACID? COMPLEX? (P) NUCLEOSIDE?
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L40             2 S HYALURONIC ACID? (P) COMPLEX? (P) PYRIMIDINE?
L41             2 S HYALURONIC ACID? (P) COMPLEX? (P) PURINE?
L42             2 S HYALURONIC ACID? (P) SALT? (P) PURINE?
L43             8 S HYALURONATE? (P) PURINE?
L44             3 S HYALURONATE? (P) PYRIMIDINE?
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     (FILE 'HOME' ENTERED AT 14:19:59 ON 24 AUG 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 14:20:19 ON 24 AUG 2007
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L2             0 S L1 AND IONIC?
L3             4 S L1 AND SALT?
L4            43 S L1 NOT  L3
L5            10 S L4 AND COMPLEX?
L6            33 S L4 NOT L5
L7             2 S HYALURON? (P) PURINE BASE?
L8            22 S HYALURON? (P) PYRIMIDINE?
L9             4 S HYALURONIC ACID/TI (P) NUCLEOSIDE/TI
L10            0 S HYALURONIC ACID/TI (P) GUANINE/TI
L11            1 S HYALURONIC ACID/TI (P) ADENINE/TI
L12            0 S HYALURONIC ACID/TI (P) THYMINE/TI
L13           10 S HYALURONIC ACID/TI (P) URIDINE/TI
L14            0 S HYALURONATE/TI (P) GUANINE/TI
L15            0 S HYALURONATE/TI (P) ADENINE/TI
L16            0 S HYALURONATE/TI (P) THYMINE/TI
L17            0 S HYALURONATE/TI (P) URIDINE/TI
L18            0 S HYALURONAN/TI (P) GUANINE/TI
L19            0 S HYALURONAN/TI (P) ADENINE/TI
L20            0 S HYALURONAN/TI (P) THYMINE/TI
L21            0 S HYALURONAN/TI (P) URIDINE/TI
L22            1 S HYALURONIC ACID/TI (P) NUCLEIC ACID/TI (P) CONJUGATE?
L23            8 S HYALURONIC ACID (P) NUCLEIC ACID (P) SALT?
L24            7 S HYALURONIC ACID (P) NUCLEIC ACID (P) COMPLEX
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L27            5 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) IONIC?
L28            4 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) SALTS
L29            3 S POLYSACCHARIDE? (P) NUCLEOSIDE? (P) COMPLEXES
L30            8 S HYALURONIC ACID (P) NUCLEIC ACID (P) INTERACT?
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L34            6 S HYALURONIC ACID (P) PURINES
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L36           17 S HYALURONIC ACID (P) PYRIMIDINE?
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L38            3 S HYALURONATE? (P) PYRIMIDINE?
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L40            2 S HYALURONAN? (P) PYRIMIDINE?
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     (FILE 'HOME' ENTERED AT 15:33:22 ON 24 AUG 2007)

     FILE 'CAPLUS, MEDLINE' ENTERED AT 15:33:52 ON 24 AUG 2007
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L3             0 S CYTOSINE? (P) HYALURONATE (P) SALT?
L4             1 S CYTOSINE? (P) HYALURONATE
L5             1 S CYTOSINE? (P) HYALURONAN
L6             0 S CYTOSINE? (P) HYALURONIC ACID? (P) COMPLEX
L7             1 S CYTOSINE? (P) HYALURONIC ACID? (P) COMPLEXES
L8             8 S CYTOSINE? (P) HYALURONIC ACID?
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